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Vol. CIII.

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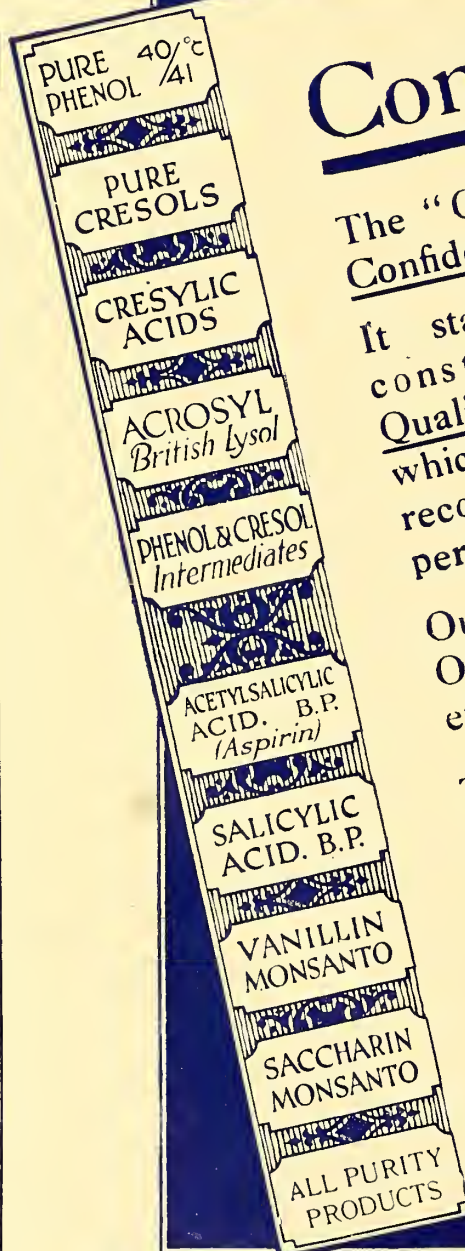
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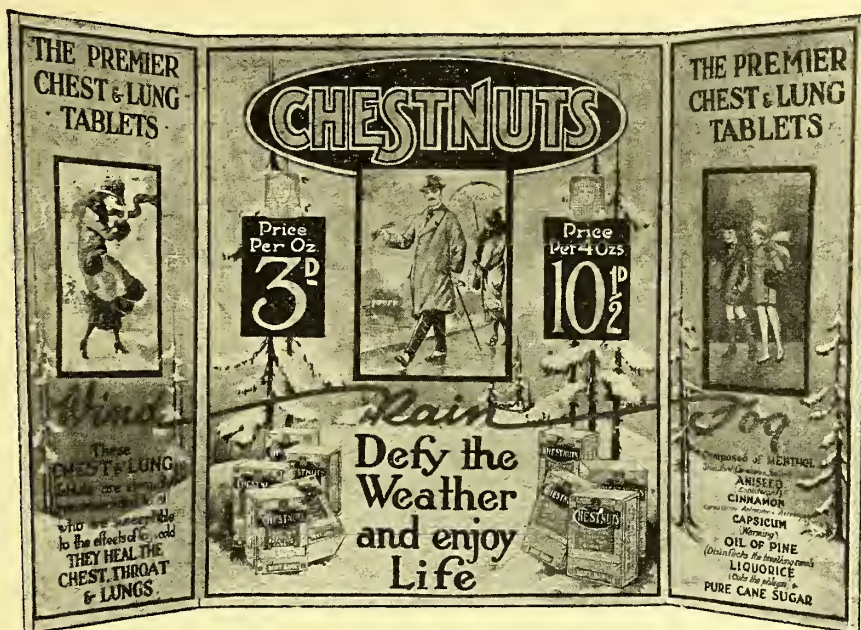
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1921

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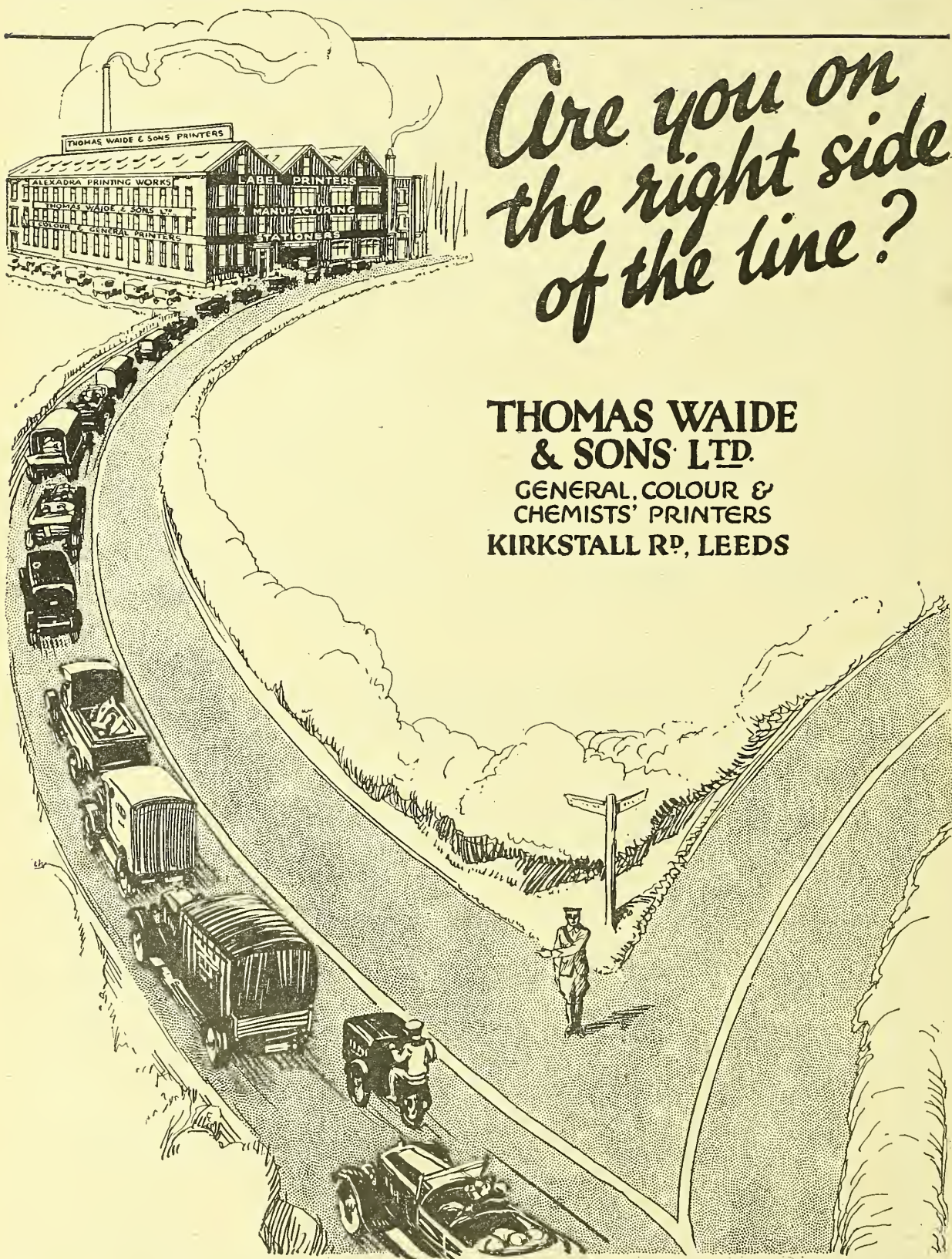
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(HEXYL-RESORCINOL B.D.H.)

A new urinary antiseptic for oral administration.

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send YOU new customers.*

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C.F.H.

Maw's



Page



They All Know "Meritor"

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Every "Meritor" brush is guaranteed. Every "Meritor" sale yields a profit of 50%. Repeatedly recommend "Meritor" Toilet Brushes.

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.





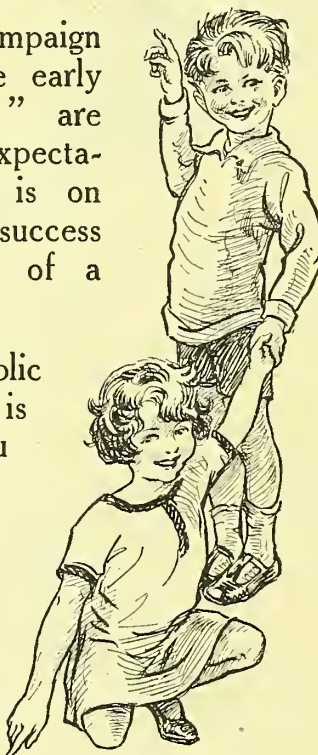
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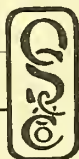
Quality made known to the public by honest-to-goodness advertising is the reason for this success, and you will be wise in linking yourself up with "Roboleine" by recommendation and display.

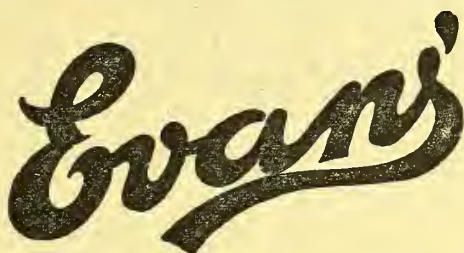
Put "Roboleine" on your counter; it will remind Mother to get us some.



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Originally invented by us in 1857

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The Effervescent Taste of this light and elegant Preparation are retained in the highest degree, through its granular form producing a continued sparkling effervescence and preserving the flavour as a palatable Saline Draught.

It is very valuable to Travellers, especially in tropical climates, as its properties are retained for any length of time unimpaired.

DIRECTIONS.—Take one teaspoonful or more, put into a tumbler half full of water, and drink during effervescence, will prove mild but efficient. A small tea-spoonful, taken in wine-glassful of water, will act as a valuable anti-acid cooling draught when feverish. A deliciously cooling and refreshing beverage may also be made by adding to a tumblerful of cold sparkling water (previously sweetened with sugar) a small quantity of the Citrate.

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This Bottle should be kept well corked, and in a dry place.

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1st QUALITY.

Proprietary sizes, 1/4 & 2/6 P.A.T.A. at 12/- & 22/6 per doz.		
* {	In round bottles containing 1-lb. 1/8	at 13/9 "
	" " " 1-lb. 2/9	" 23/- "
	" " " 1-lb. 4/9	" 37/- "
	Bottles containing 4 1/2-lbs. & 7-lbs. (Bottles extra) ...	" 2/8 "

Less usual Discount.

Contracts for large Quantities will be delivered as required during the current year.

* All these bottles are folded in a special Registered Wrapper, bearing facsimile of Bottle and Label.



48 SPELMAN ST. LONDON, E.1



ENTHUSIASM on the part of the profession and public alike has laid firm foundations for 'DISPELLO' CATARRH SNUFF. Observe the formula above and you will realise why it is an effective remedy—then look at the display and you will know at once why the public eye is attracted and the hand goes instinctively to the pocket.

This display is so contrived that the unsightliness of a part-sold box is avoided. Three, six, nine or a full dozen daintily designed and cellophaned boxes can be displayed and yet kept clean—to see one is to buy one, and to use the snuff is to ask for it again. Keep a box in view of your customers, and get the outsider into the Pharmacy by means of the window display provided. Then notice how quickly you turn snuff into money.

Per dozen - - - - - 4/6
Per gross - - - - - 48/-

A sample will be sent free on request.

Window display provided free with one gross.

AYRTONS
for Packed Goods
LIVERPOOL

CALIFORNIA

Is celebrated for its

ORANGE

Groves and the Exquisite Flavour of its fruit. It is not to be wondered at, therefore, that the

OIL

from these fruits has a **DISTINCTIVE** and **TRUE**
ORANGE FLAVOUR

The price is equally attractive. You can prove it if you will ask your Dealer.

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THE EXCHANGE ORANGE PRODUCTS CO.
CALIFORNIA

WHEELER & HUISKING Ltd.
26/27 GREAT TOWER STREET, E.C.3

E. SACHSSE & CO.
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Distillers & Manufacturers of

**ESSENTIAL OILS,
SYNTHETICS, FLOWER OILS,
COMPOUND PERFUMES, etc.**

Specialities:

**TERPENE & SESQUITERPENE
FREE OILS (T.S.F.)
ORRIS OIL PRODUCTS,
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SAMPLES AND PRICES ON APPLICATION TO
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IMPORTERS OF CHEMICALS, DRUGS,
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STOCKS IN LONDON.

Established 1795.

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Works : GRASSE (France) & BEYRUT (Syria).

Essential Oils ——— Synthetics.
All Raw Materials for Perfumery.

Absinth	Laurel
Almond, bitter.	Lavender
Angelica (S.A.P.)	Lemon
Basil	Mace
Bay	Metissa
Bergamot	Neroli big and Syn.
Bois de Rose femelle	Orange
Cajuput	Otto de Rose
Caraway	Patchouli
Cinnamon	Peppermint
Cloves	Rosemary
Copaiba	Rue
Costus	Sandalwood
Cubeb	Spike Lavender
Fennel	Tansy
Geranium	Tarragon
Honey	Thyme
Hyssop	Vetivert

**Olive, Peach Kernel, Sweet Almond Oils
Floral Waters.**

Wholesale and Export only.

LAUTIER FILS, Ltd., 4 Denman St., London Bdg., S.E.1
Tel. Add.: "LAUTIER, PHONE, LONDON." Telephone: HO 2819.



"DISTOL" LILY of the VALLEY

THE story of "Distol" Lily of the Valley is the story of any one of the forty-five "Distol" Ottos. The odours differ, but the quality and convenience are the same always.

Whether your demand is for an elusive perfume such as Lily of the Valley, or a clinging oriental scent such as Nubian Poppy, "Distol" Ottos will supply your needs at a minimum of cost and labour, and without locking up capital in big stocks of S.V.R.

An ounce of any "Distol" costs 7/6 and is made in a few moments into a choice perfume by the mere addition of S.V.R. and Aqua Dest, without the need of tinting, filtering, blending, distillation or any other time-absorbing process.

Send for samples of perfumes made under ordinary commercial conditions from any six "Distol" Ottos.

"Distol" Ottos are ideal for the production of proprietary perfumes and distinctive toilet preparations. Write for formulæ and suggestions.

B 44

THOMAS KERFOOT & CO. LTD.
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

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THE
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for
LIQUID
SHAMPOOS
is
steadily
increasing

This Series
shows a
substantial
profit
and
has a
ready
sale

TOOGOOD'S LIQUID SHAMPOOS



PACKED IN 4 oz.
ROUND BOTTLES
WITH PATENT
CAP,
EACH IN CARTON.



CUSTOMER'S
NAME FREE
ON
3 DOZEN
ORDERS.

Supplied in Six varieties:—

No. 4254 Olive Oil Shampoo	-	11/6 doz.
„ 4255 Camomile „	-	11/6 „
„ 4270 Henna „	-	11/6 „
„ 4256 Tar „	-	10/6 „
„ 4257 Medicated Pine Tar „	-	10/6 „
„ 3713 Cocoanut Oil „	-	10/6 „

PACKED IN ATTRACTIVE COUNTER DISPLAY
BOXES OF SIX.

MANUFACTURED BY

WILLIAM TOOGOOD LTD
77 SOUTHWARK ST LONDON SE1

'BOVAL' FLOOR GLOSS

FOR
PERFECT
DANCING

A Perfect Floor is essential

THIS IS PRODUCED BY

"BOVAL" FLOOR GLOSS

NO WAX, NO WORRY.

SIMPLY SPRINKLED ON THE FLOOR,
THE DANCERS DO THE REST.

It creates no dust and imparts a delightful
fragrance to the room.

*Packed in beautifully labelled sprinkler
top containers.*

1/6 P.A.T.A. - 13/- dozen
2/6 " - 22/- "

Attractive Showcard supplied.

STOCKED BY LONDON HOUSES.

**JAMES WOOLLEY
SONS & CO. LTD.
MANCHESTER**

Warehouse, Offices & Showrooms : Victoria Bridge.
Laboratories & Drug Mills,
Knowsley Street.

FOR
BALLROOM
FLOORS



TRADE MARK



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CHRISTMAS PERFUMERY

*Lilas Lilas,
Violette de Cannes,
Rose de Cannes,
Cœur d'Yvonne,
Persian Garden,
Scents of Araby.*

All these perfumes, which are of the highest standard, are presented in the most modern French styles, and are works of art which should be a pleasure to any chemist to handle.

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IF OUR TRAVELLER IS NOT CALLING UPON YOU REGULARLY DROP US A LINE AND WE WILL MAKE ARRANGEMENTS FOR HIM TO VISIT YOU AT AN EARLY DATE.

THIS WILL INVOLVE YOU IN NO OBLIGATION.

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**CARNATION
PERFUME
POT POURRI
CARNATION
SACHETS**

AND BATH CRYSTALS

are the Products of the World's Leading
Carnation Specialists.

**THE FINEST QUALITY—DELIGHTFULLY
PACKED—LIBERAL SALES AIDS—AND
AN ADEQUATE MARGIN OF PROFIT
TO THE CHEMIST.**

Please write for particulars and Trade Terms to

Allwood Bros

THE WORLD'S LEADING CARNATION
—RAISERS AND SPECIALISTS—

HAYWARDS HEATH, SUSSEX

"WHEN I came to the bend of the road, I think my heart stood still for a second or two. There in front of me and to my left—almost, as it seemed, at my feet—were the heather-covered moors, gloriously purple, and the tears came into my eyes. I could not help it, it was so unexpected, and it unlocked too suddenly the chamber where a memory was preserved. . . ."

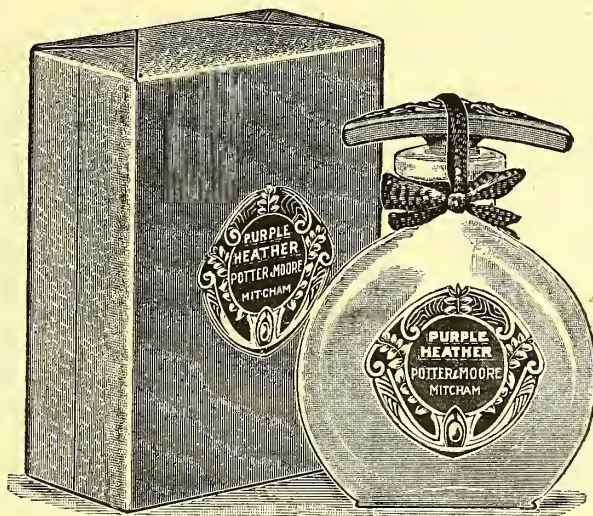
"Years ago, and long before his sufferings ended, my father was leaning back in his chair one day . . . when there came into his eyes a look of inexpressible longing. . . . I went and knelt by his side . . . and asked, 'What is it, Dad, dear?'. He . . . answered sadly, it was a little more than a whisper, for he was very weak, 'It was the heather calling me, lassie; I felt its sweet breath upon my cheek for a moment, and longed to fall on its comfortable breast.'"

—"WINDYRIDGE," by W. RILEY.

POTTER & MOORE'S PURPLE HEATHER

The sweet breath of the moors!

**PURPLE
HEATHER**
is a Perfume of
surpassing
sweetness and
delicacy; we
shall be pleased
to forward a
small testing
sample on appli-
cation.



Packed, as
illustrated, in
four sizes, also
in oval bottles
and sample
flasks.

PRICES ON APPLICATION.

POTTER & MOORE distill the celebrated 1749 Mitcham Lavender Water, which is known and appreciated throughout the whole World.

POTTER & MOORE, THE LAVENDER DISTILLERY,
MITCHAM - - SURREY.

Sole Proprietors:

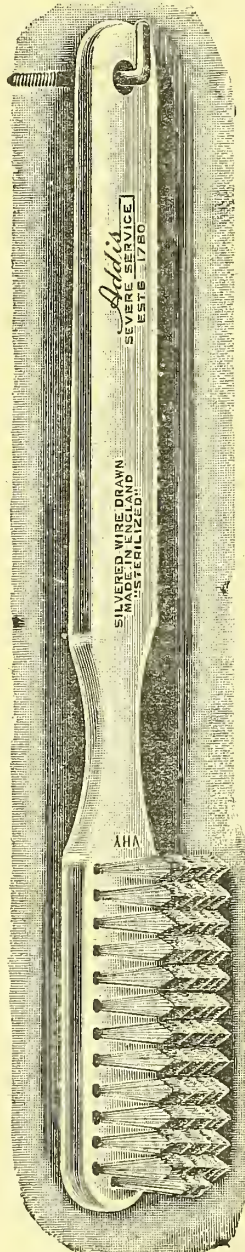
W. J. BUSH & Co., Ltd. Ash Grove, Hackney
LONDON, E.8.

Sole Wholesale Scottish Agents for Articles of Perfumery:

MUNRO, M'LAREN & SUTHERLAND - GLASGOW

The First Tooth Brush

ADDIS
SEVERE SERVICE
Estb. 1780.



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was made in 1780 by WILLIAM ADDIS in London, England. The business then founded has been carried on continuously, passing direct from father to son. The policy of the business has always been "Service" to user.

When purchasing a Tooth Brush, should you require a stiff brush for Severe Service, ask for

"Addis
Severe Service"

This is typically an English Style Gentleman's Brush, made of Unbleached Bristles, with small serrates on a plain straight handle.

For those who require a smaller and more stylish brush the

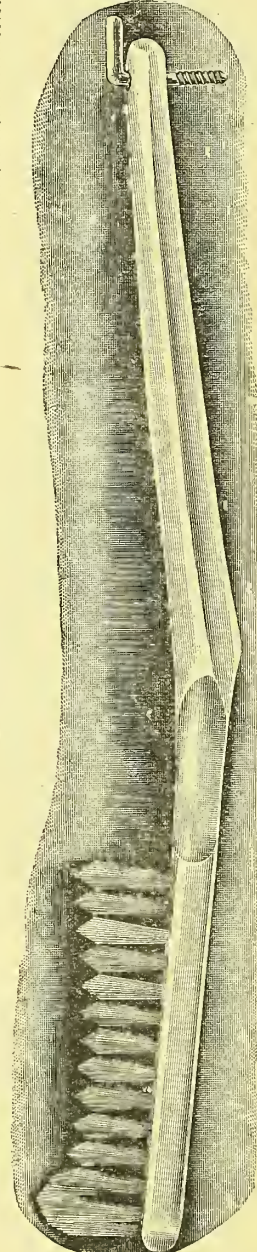
"Addis
Prophylactic"

on a curved handle, will fill the want. This brush is made in Very Hard Unbleached Bristles, Hard White, Medium White, and Soft if required. We recommend the Hard for the average use, bristles always being softer when wet.

Both these brushes are hand-fashioned and hand-drawn, the best materials and methods of workmanship being used regardless of cost.

Manufactured in England and Guaranteed by:
THE OLDEST FIRM OF TOOTH BRUSH
MANUFACTURERS IN THE WORLD

ADDIS
PROPHYLACTIC
Reg. No. 593367.



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ROBT. ADDIS & SON
BRUSH WORKS, HERTFORD, ENGLAND.

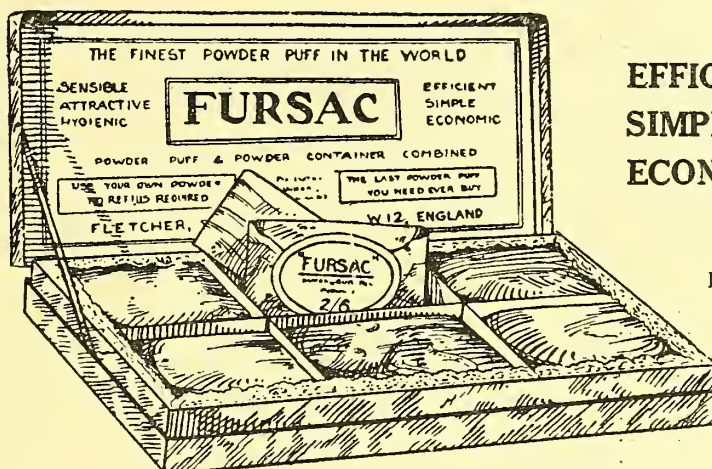
"FURSAC"

Patent No. 234651

AN "EFF-ESS" PRODUCTION

**SENSIBLE
ATTRACTIVE
HYGIENIC**

Natural Undyed
Fur and
Selected Leather



**EFFICIENT
SIMPLE
ECONOMICAL**

Powder Puff &
Powder
Container
Combined

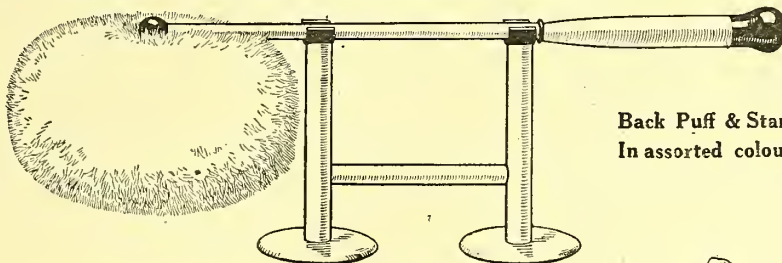
CUSTOMER USES HER OWN POWDER.

No special Re-fills required. Powder cannot spill. Puff itself rolls out of envelope merely by the aid of finger tips, and is replaced just as easily.
No parts to lose. Compact and clean. Shows 33 $\frac{1}{3}$ % profit. Sells itself.

Absolutely the Finest Powder Puff there is.

Supplies from any of the Wholesale Houses.

**ATTRACTIVE
GIFT LINES
FOR THE
XMAS SEASON**



Back Puff & Stand
In assorted colours.

Manufacturers of all classes of
POWDER PUFFS

WRITE FOR COMPLETE LIST.

**FLETCHER, SQUIRES & CO.
LONDON, W.12**

Phone: RIVERSIDE 3110.



Figure Puffs of all designs.

DR PIERRE'S EAU DENTIFRICE D. T. L. M. L.

and Hygienic Preparations for the Teeth.
Liquid, Paste, Powder and Soap. Famous
————all the World over.————

LIQUID (Eau Dentifrice).

					Doz.
1/3 Eau Dentifrice	..	..	No. 000 Paper Label	..	11/-
2/-	"	..	00 " " "	..	18/-
3/8	"	..	0 " " "	..	32/-
5/9	"	..	1 " " "	..	55/-
9/3	"	..	Travelling Bottles	..	85/-
8/6	"	..	2 Bis. Paper Label	..	80/-
18/6	"	..	3 " " "	..	173/-
30/-	"	..	4 " " "	..	270/-
56/-	"	..	5 " " "	..	530/-
9/6	"	..	2 Engraved Label	..	86/-
20/-	"	..	3 " " "	..	180/-
35/-	"	..	4 " " "	..	312/-
63/6	"	..	5 " " "	..	600/-

POWDER.

				Nos.	
3/9 Dentifrice Powder	} Quinine	in porcelain boxes	12 or 16	..	33/-
1/6 " "		in metal boxes	45 or 46	..	12/-
1/3 " "		in cardboard boxes	10 or 14	..	9/-
1/6 Dentifrice Powder Email		in metal boxes	47	..	12/-

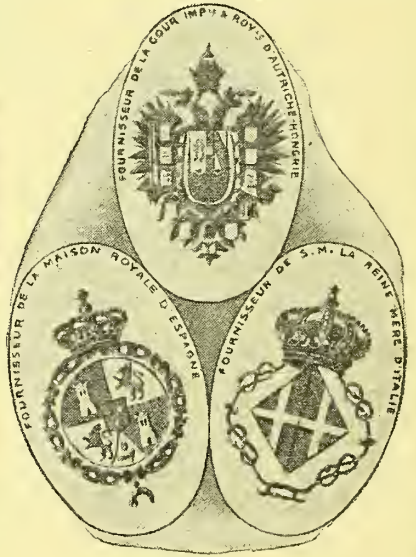
PASTE.

1/3 Dentifrice Paste	..	..	in crystal boxes	No. 17	..	10/6
1/9 " "	..	..	" "	" 18	..	16/6
1/- " "	..	..	in tubes	" 52	..	8/6
-7 1/2 " "	..	..	" "	" 20	..	5/3
1/- " "	..	..	" "	" 40	..	7/6

SOAP.

1/- Savon Dentifrice	..	..	in tubes	No. 44	..	8/-
1/- " "	..	..	in aluminium boxes	" 50	..	8/-
1/- " "	..	..	in porcelain boxes	" 51	..	8/6

DENTIFRICES DU DOCTEUR PIERRE
de la Faculté
DE MÉDECINE DE PARIS
8, Place de l'Opéra, PARIS



Fournisseur des Cours
Fournisseur du Monde Médical

Protected Prices both Wholesale and Retail.

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And at BIRMINGHAM & GLASGOW



ARMAND

DANCING

A lady is always anxious to "look her best" at the Dance.
Frequent dabs with the powder puff are unnecessary
if she uses

ARMAND COLD CREAM POWDER

for an ARMAND Toilet is lasting and in good taste.
The Cold Cream base gives this powder those qualities
of smoothness and adherence for which it is appreciated
throughout the world.

Take full advantage of our Sample Advertising
Scheme—let us introduce ARMAND to ALL your
customers, they will appreciate your thought in bringing
it to their notice—and ARMAND shows you nearly
DOUBLE MONEY PROFIT.

Introduce Armand—It Pays

Send for latest PRICE LIST and MAIL SAMPLING LIST.

*Florian & Armand Ltd.,
Queensway, Ponders End,
Middlesex*

*9/6 Profit
in every £1 you sell
of Armand Goods*





Use this New Showstand

It has already proved itself a good salesman of NUCTONE in many parts of the country. From a decorative point of view it would be hard to beat, and it forms a splendid link between our advertising and your cash-till. Ask for it when you next order NUCTONE.

You sell NUCTONE under a definite guarantee of safety backed by the manufacturers. When asked for a colour restorative for Grey Hair you can recommend it with confidence every time.

Nuctone

for GREY HAIR

In
Four
Grades

NUCTONE for dark and medium hair.
3/9 size 32/- doz., 6/6 size 52/- doz.

NUCTONE ECLAIRE for fair & auburn hair. 3/9 size 32/- doz., 6/6 size 52/- doz.

NUCTONE CONCENTRE for Gentlemen's hair, 6/6 size 52/- doz., 12/6 size 84/- doz.

NUCTONE ECLAIRE CONCENTRE for Ladies and Gentlemen with fair hair who want a quicker result.

6/6 size 52/- doz., 12/6 size 84/- per doz.

Obtainable from your usual wholesalers or direct from—

QUELCH & GAMBLES, Ltd.
211/215 Blackfriars Road, London, S.E.1

Manufactured by
STEWART, GOODALL & DUNLOP, LTD., Derin St., London, W.1

Please
get your supplies of
AMAMI
Shampoos from
P. A. T. A.
WHOLESALE

They allow
just the same Bonus

10%

on six dozen
sixpenny Shampoos

AMAMI 4/10 Chancery St. London W.C.1.

The Evan Williams

ALWAYS IN GREAT DEMAND.
PRICE LIST ON APPLICATION.

The EVAN-WILLIAMS Co., Ltd., 14/15 Union St., W.1.

SHAMPOO

PASTA



MACK

A Delightful Necessity

For BATH & TOILET

PASTA MACK 2/- size 16/- per Doz. Boxes (Each containing 8 Small Tablets). 3/6 size 23/- per Doz. Boxes (Each containing 8 Large Tablets).

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WILLIAM EDWARDS & SONS,
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*Phone: Clerkenwell 5230, 5231, 5232.

Makers: H. Mack Success: Ulm O/D.

G. B. KENT & SONS, LTD.

Are known the World over as
the Largest Manufacturers of

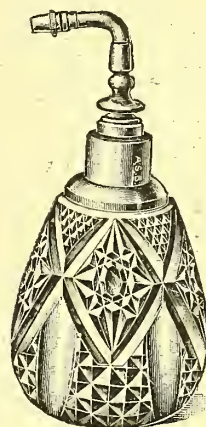
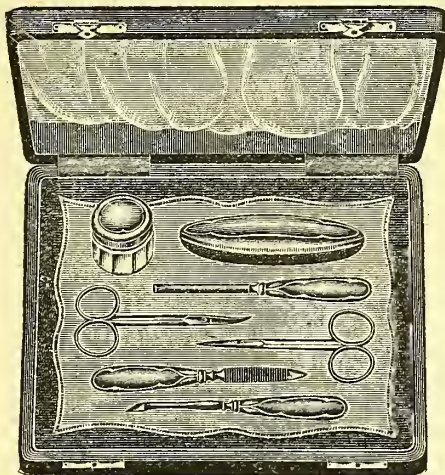
BEST BRITISH BRUSHES

Please write for full Particulars to—

75 Farringdon Road, E.C.1.

SILVER MOUNTED TOILET WARE

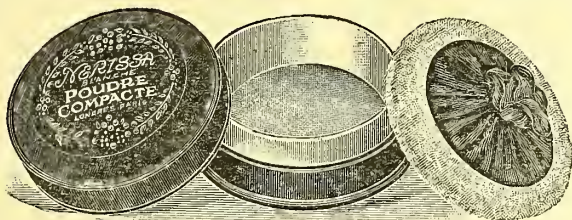
SEND FOR LATEST CHRISTMAS LIST OF NEWEST DESIGNS AND NOVELTIES
IN SILVER, ELECTRO-PLATE, TORTOISESHELL, EBONY & LEATHER GOODS



ADOLPH SCOTT, Ltd.

124, 125, 126 GREAT HAMPTON STREET, BIRMINGHAM
TELEGRAMS: "ADOLPH," BIRMINGHAM. TELEPHONE: NORTHERN 2102

Poudre Compacte



Sole
Manufacturers:

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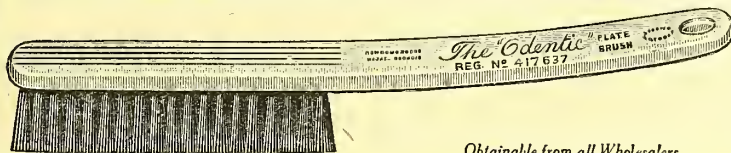
The best range of Solid Powders on the market.

All complete with Puff, in assorted perfect
tints. In attractive Show Boxes of 1 dozen.

- | | | |
|--------|--|----------|
| F100. | "Thé Dansant," Nickel Plated Box | 6/- doz. |
| F101. | "Thé Dansant," " " " with
diminishing mirror | 7/6 " |
| F102. | "Secret Charm," Embossed Aluminium
Box, with diminishing mirror | 5/- " |
| F103. | "Golden Dawn," Imitation Gold Box, with
diminishing mirror | 7/6 " |
| F104. | "Damask Rose," Imitation Gold Box,
decorated in colours, with diminishing
mirror | 7/6 " |
| F1003. | "Nerissa," Attractive Card Boxes as illus-
trated, in handsome display outer | 5/- " |

Obtainable through all Wholesale Houses.

Perfect Powder. Freedom from breakage. Daintily presented.
An assortment that will meet the taste of every buyer and
bring repeat orders.



"ODENTIC" PLATE BRUSH

(Reg. No. 417637)

For ARTIFICIAL DENTURES

Manufactured by—

W. R. SPEER & SON (Estd. over 100 years)
Tooth-Brush Makers,

215 DALSTON LANE, LONDON, E.8.

Obtainable from all Wholesalers.

GENUINE U.S.A.

GILLETTE
BLADES

26/6
PER
BOX

Send for LATEST PRICE LIST

Cash with Order.

L. J. STAMBOIS The Safe Safety Service
34 CALL LANE LEEDS

Turn Over

Nine Factors

modern practice calls for
in a tooth paste

BASED on the dominant dental opinion of to-day, the Pepsodent formula is based on these important factors. Tests in collaboration with many foremost authorities prove that this modern tooth paste meets those factors adequately. The fact that every day, largely on dental advice, the world turns more and more to Pepsodent confirms it.

1—*Acid*: Sufficiently acid to produce desirable stimulation of salivary flow.

2—*Cleansing*: Disintegrates and removes albuminous plaque.

3—*Safe*: A polishing agent which does not scratch enamel.

4—*Polish*: Produces a high lustre on the enamel of the teeth.

5—*Gentle*: Contains no injurious ingredients, as proved by lengthy tests.

6—*Mouth*: A valuable adjunct in keeping both the mouth and the teeth perfectly clean.

7—*No free acid*: The acid phosphates present in Pepsodent produce its acid reaction . . . no free acids.

8—*Unique action*: By virtue of its unique action it removes the plaque and stimulates acid flow.

9—*Protective*: By stimulating salivary power, natural protective forces of the oral secretions are increased. Increases the volume, the alkalinity and ptyalin indices and reduces the viscosity.

Know your Wares.

Become familiar with the goods you sell. We shall be pleased to send, free, a large tube of Pepsodent for your personal use. Send Coupon.

Pepsodent
TRADE MARK

The New-Day Quality Dentifrice

THE PEPSODENT COMPANY (Dept. 280),
42 Southwark Bridge Road, London, S.E.1.
Please send me, free of charge, one regular 2/- tube of Pepsodent.

Name

Address

Enclose business card or letter-head.

C. & D. 17/10/25

DEARBORN (1923) LTD.

37 Gray's Inn Road, London, W.C.1

Toilet Specialties.

	Price per doz. to Retailer	Selling Price P.A.T.A.
PILENTA SOAP ..	10/-	1/-
A complexion soap.		
PROLACTUM ..	10/-	1/-
For the lips.		
PARSIDIUM JELLY ..	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM ..	22/6	2/6
A dressing cream.		
BORANIUM ..	22/6	2/6
A hair tonic.		
CLEMINITE ..	22/6	2/6
For a face lotion.		
COLLIANDUM ..	22/6	2/6
For a face tint.		
PERGOL ..	22/6	2/6
A deodorant.		
TEKKO PASTE ..	22/6	2/6
Camphor cream.		
STALLAX ..	13/6	1/6
For a shampoo.	22/6	2/6
JETTALINE ..	31/6	3/6
For clearing the skin.		
PHEMINOL ..	36/-	4/-
A depilatory.		
MENNALINE ..	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX ..	18/-	2/-
A face cream.	31/6	3/6
STYMOL ..	36/-	4/-
For oily complexions and blackheads.		
SILMERINE ..	22/6	2/6
Hair-curling fluid.		
BARSYDE ..	22/6	2/6
Dandruff eradicator.		
TAMMALITE ..	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL ..	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM ..	22/6	2/6
For whitening the hands.		
COCONOIDS ..	31/6	3/6
For figure development.		

The Products of

Messrs. PARKER, BELMONT & CO.

GLYNOL BERRIES ..	36/-	4/-
For obesity.	58/6	6/6
SOFT PALERIUM ..	45/-	5/-
For wrinkles.		
LIQUID NAIL POLISH ..	10/-	1/-
Brilliant and lasting.		

Stocked by ALL Wholesale Houses.

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South Africa: LENNON, Ltd., Cape Town, etc.
SIVE BROS. & KARNOVSKY, Johannesburg.
India: FRAMJEE & SON, Bombay.
A. L. CHOUDRY, Calcutta.
New Zealand: SHARLAND & CO., Auckland and Wellington.
South America: DEARBORN (South America) Ltd., Calle Pavon 2100, Buenos Aires.
Straits Settlements & Federated Malay States: MEDICAL HALL, Ltd., Singapore.

Frozoclone

REGD.

The Original & Best
SOLID EAU DE COLOGNE



In Green Bottles Registered
ACTUAL SIZE OF
STANDARD PACKING.

IN 2 SIZES

In order to meet the insistent demand for a smaller size bottle of the Original "Frozoclone" a small packing has also been introduced. Chemists will find that this smaller size has a ready sale.

PRICES P.A.T.A.

ORIGINAL
PACKING
32/- Doz.

3/6
RETAIL.

NEW
PACKING
16/- Doz.

1/10
RETAIL.

Important Notice to Shippers and Overseas Buyers

WRITE FOR SPECIAL EXPORT TERMS

Formerly the minimum quantity for Bonded Shipment was 4 gross. Arrangements have been made with the Customs and Excise Authorities whereby it is now possible to supply for *Bonded Shipment* quantities from a minimum of 1 gross large or 2 gross small upwards.



ACTUAL SIZE OF NEW
SMALLER PACKING.



THE LUSCIOUS LAXATIVE

OTHER DEMUTH
LINES WORTH
ATTENTION



R. DEMUTH'S LABORATORIES

68 SALUSBURY ROAD
& MONTROSE AVENUE,
LONDON, N.W.6.



LOOK FOR OUR
TRADE MARK
REFUSE WORTHLESS
SUBSTITUTES

"Papier Poudre"

TRADE MARKS

An absorbent paper specially treated with pure powder, delicately perfumed, cut and bound in dainty booklets.

Removes dust, dirt and perspiration and leaves a protective dusting of powder which imparts a velvety bloom to the skin.

Convenient to carry, easy to use without mirror, does not sprinkle powder on the clothing. Invaluable when travelling by train or motor, heated by games, dancing, etc., and being absolutely harmless and very soothing, is popular for use after shaving.

TINTS—White, Rose, Rachel, and Sunburn

In Booklets

4d. size	..	..	..	..	..	..	at	2/8	per dozen, nett
6d. size	..	..	..	..	..	..	"	3/9	" "
8d. size	..	..	..	..	..	..	"	5/-	" "
1/4 size	..	..	..	..	..	..	"	10/-	" "
6d. size (with Mirror inset)	..	..	..	..	..	..	"	3/9	" "
1/- size (with Mirror inset)	..	..	..	..	..	..	"	7/6	" "

Sunburn Tint is supplied in 8d. and 1/4 sizes only.

Sole Proprietors :

PAPIER POUDRÉ LTD., 46 BAKER STREET, LONDON, W.1

Simplify Selling and Reduce Overhead Expenses

Whatever your customers' preference, there is a Gibbs Toilet Preparation of which it can be said, "Just what I wanted." Men, women and children are all provided for.

Gibbs Advertising allied to Gibbs Quality has created ready public acceptance. Very little selling effort is required from you. Simplify selling, simplify book-keeping, make good profits, and reduce your overhead expenses.

Never be short of stock. Confidently order ahead. Gibbs lines are always selling.

Gibbs TOILET PREPARATIONS

D. & W. GIBBS, LTD. (Dept. DG10), CITY SOAP WORKS, LONDON, E.1

LINE THAT SHOW GOOD PROFITS



Taylor's CIMOLITE PREPARATIONS

50 YEARS' REPUTATION.

Used in all Royal Nurseries and by the Nobility.

CIMOLITE TOILET POWDER.

Boxes, 1/1½ (per doz. 9/6)
Tins, 3/-, 5/6, 11/- (per doz.
27/-, 49/3, 96/-)

Bottles, 3/3, 6/6 (per doz.
30/-, 55/6)

CIMOLITE TOILET CREAM.

Collapsible tubes, 1/3 (per
doz. 11/6)

CIMOLITE SOAP.

Per tablet, 8d.; per box 2/-
(per doz. 3 tab. boxes, 20/-)

CIMOLITE FACE POWDER.

Boxes, 1/1½ (per doz. 9/6)
Tins, 3/- (per doz. 27/-)

Bottles, 3/3 (per doz. 30/-)

CIMOLITE SOAP (Violet-Scented)

Per tablet, 8d.; per box, 2/-
(per doz. 3-tab. boxes, 20/-)

CIMOLITE SHAVING SOAP.

Sticks, 1/3 (per doz., 11/6)

SHOWCARDS and Counter
Bills on application.



Cimolite Preparations are stocked by all wholesale houses.

NOW
ON
THE
P.A.T.A.

ATTRACTIVE SHOW CARD obtainable from all wholesalers or direct.

PREPARED ONLY BY

JOHN TAYLOR, Manufacturing Chemist
50 BAKER STREET, PORTMAN SQ., LONDON, W.1



You'll always be selling more

Your sales of Forhan's For the Gums are not dependent on a passing whim of the public.

There is nothing to take the place of this "more than a dentifrice."

Your customers know that only regular use of Forhan's For the Gums, together with professional advice, will check or prevent dread Pyorrhea.

Week after week, month after month, year after year, forceful Forhan's For the Gums advertisements are telling them so; making "4 out of 5" a household phrase; inducing people to look to *their* dental health by means of this pleasant-tasting protector of the teeth.

Make the most of it. An arresting showcard in your window, on your counter opens your door to almost every Pyorrhea sufferer in your district.

Showcards are free on request.

THOS. CHRISTY & CO.,
4-12 Old Swan Lane, London, E.C. 4.

Forhan's

FOR THE GUMS

More than a tooth paste—
it checks Pyorrhea



Peldo
(Patent applied for)

**THE
INVISIBLE
GLOVE**

IF YOU SHOW 'PELDO' YOU WILL SELL IT!

'PELDO' IS ORIGINAL.

It is not a Substitution for Anything.

Obtainable from all the Patent Houses @ **13/6** per dozen.

WINDOW DISPLAY MATERIAL FREE ON APPLICATION.

SOLE PROPRIETORS AND MANUFACTURERS:

C. R. HARKER, STAGG & MORGAN, LTD.

Devon Wharf and Bell Wharf,

EMMOTT STREET, MILE END, LONDON, E.1.

CHRISTMAS LINES.

Large and varied stocks of BRUSH AND COMB SETS, MILITARY BRUSH SETS, MANICURE SETS, PERFUMERY, PERFUME SPRAYS, HANDBAGS, and other Toilet Articles suitable for the Modern Pharmacy.

SOLE WHOLESALE AGENTS IN SCOTLAND FOR POTTER & MOORE'S LAVENDER AND PERFUMERY:—

MUNRO, M'LAREN & SUTHERLAND, 17 Cadogan Street, GLASGOW.

Note.—There has been no change in management or co-partners of this firm.—A. B. M'LAREN, Sole Partner.



SHADEINE

For COLOURING GREY HAIR

This popular article is largely advertised and stocked by all Wholesale Houses.
Trial size 8d. per doz. .. 6/-
1/4 size, per doz. .. 12/-
2/6 size, per doz. .. 24/-
2/9 size, per doz. .. 36/-

The SHADEINE CO., 58 Westbourne Grove, London, W.2.

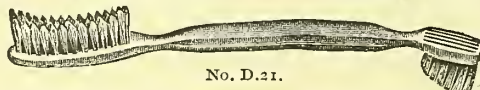
Tatcho-tone
For GREY HAIR

PRICES
8d. Trial phial
per doz. 5/9
Per doz.
2/6 size, 21/-
4/6 ,, 42/-

TATCHO-TONE CO., 5 Gt. Queen Street, London, W.C.

**DOUBLE
BRUSH**

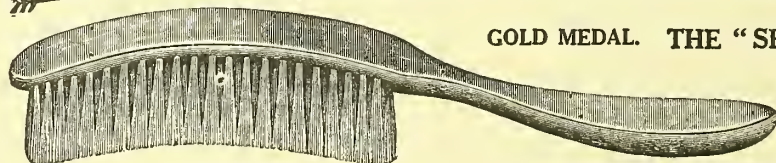
BIDWELLS' "GLORIA"



No. D.21.

FOR CLEANING BOTH SIDES OF THE TEETH.

**PRICE:
24/- per doz.**



HIGH CLASS

GOLD MEDAL. THE "SHINGLETTE" HAIR BRUSH

PRICES: per doz. retail

Satinwood, Grey Bristle ... 48/- 6/6
Satinwood, White Bristle ... 66/- 9/-
Solid Ebony, White Bristle 72/- 10/-

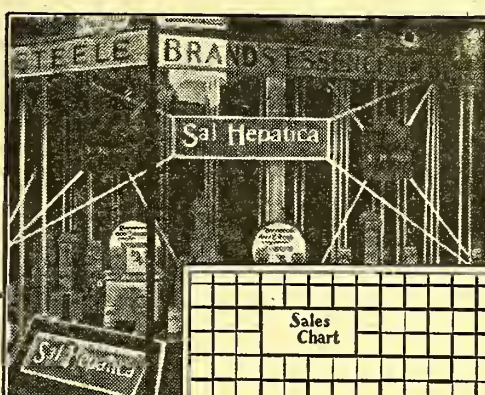
CASTLE MILLS, AXMINSTER.

This

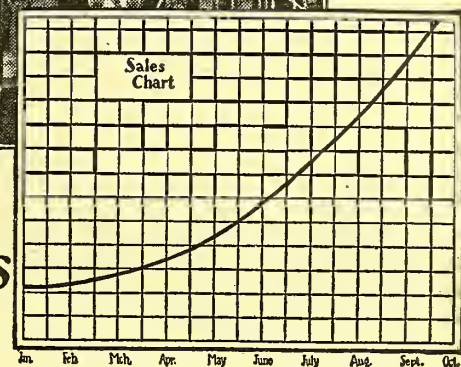


Sal Hepatica
The daily regulator

makes this



which makes this



Sales Chart

Jan. Feb. Mch. Apr. May June July Aug. Sept. Oct.

This new salt does 2 things

- 1 Clears and weakens matter and skin
- 2 Encourages the elimination of waste-clearing organs to do their work, alone

Sizes
1/9 and 3/4

Sal Hepatica

More bottles sold - more profit on each bottle!

RECORD sales are being made in shops like the one we show—you have an equal opportunity of making more money.

The method is *display*—it draws people into your shop—it breaks down their last line of resistance, it catches them when their purses are open.

And the special display offers make it well worth your while to show Sal Hepatica. These terms have gone into effect and will stay in effect—they mean that if you show this salt you will not only sell more but you will also get more profit on each bottle.

Every possible support is given you. Forceful advertisements are appearing regularly in four great

These are the new display offers—order from us or through your regular P.A.T.A. wholesaler; the generous terms hold either way.

No. 1 6 dozen "small" and 3 dozen "large" for £7.17.11½ instead of the usual £8.15.6—a reduction of 10%. Your total profit, £3.16.0½, or 48.1% on your investment.

No. 2 3 dozen "small" and 1 dozen "large" for £3.8.8 instead of £3.14.3—a reduction of 7½%. Your total profit, £1.10.4, or 44.1% on your investment.

No. 3 1 dozen "small" for 14/11½ instead of the usual 15/9—a reduction of 5%. Your total profit, 6/0½, or 40.5% on your investment.

Terms: For direct orders 30 days for Nos. 1 and 2 with 1¼% off for cash. No. 3, cash with order or on delivery, with 1¼% off. Or from your wholesaler.

Sunday papers. This advertising prepares your customers, makes them ready to hear you say Sal Hepatica.

For your window and counter, too, attractive new showcards, cut-outs, and window strips have been prepared to make a display which is at once striking yet in harmony with the dignity of your shop. And there are the new price tickets—chemists are saying that these are the neatest pieces of display material that they have yet seen.

Sal Hepatica is a quality product, a saline for your discerning regular customers.

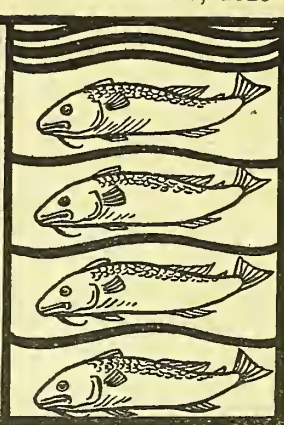
Display it and you, too, can see your sales go steadily up and stay up. Many chemists already have a sales chart like the one reproduced above.

Take advantage of these special terms. Write for the show material. We will send it promptly and without any charge.

Bristol-Myers Company, 112, Cheap-side, London, E.C.2.

An effervescent saline based on an analysis of the famous bitter waters of the great European Spas—and containing lithia in an efficient quantity.

Sal Hepatica

	The Best is Good Enough TOLKIEN'S MALT EX. MALT & OIL C. Tolkien & Co. <i>Makers of Malt Products of Quality</i> BLACKBURN	
---	---	---

1825— 1925	100 YEARS' SUCCESSFUL Neave's Foods	TRADING FIXED PRICES FIXED PROFITS showing 25% minimum Extensively advertised on National lines. Showcards and advertising literature free on request. NEAVE'S FOOD LTD. FORDINGBRIDGE.
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ATKINSON & BARKER'S INFANTS' PRESERVATIVE THE BEST AND SAFEST INFANTS' MEDICINE OF OVER 120 YEARS' STANDING. Prices and Terms on application to R. BARKER & SON, Ltd. 13 Wesley St., C.-on-M., MANCHESTER.	DOES NOT CONTAIN any SCHEDULED POISON.
---	--

<u>Important Note</u> <u>to Chemists</u> <u>without Licenses</u> It has been established by law that Registered Chemists may sell Wincarnis with Quinine without a License.	 Sells readily <u>ALL</u> the time. COLEMAN & CO., Ltd., Wincarnis Works, Norwich	<u>Prices to</u> <u>the Public:</u> Large Size 5/- Small Size 3/-
---	---	--

LORIMER-MARSHALL

FOR

PACKED GOODS

Cough Mixtures, Tonic Elixir, Liniments,
Syrup of Hypophosphites, Embrocations,
Emulsions, Syrup Ferri Phosph. Co.
and the

Lorimer's "Gold Medal" Chemical Food

LORIMER-MARSHALL, Ltd., 12 Tower Hill, LONDON, E.C.3

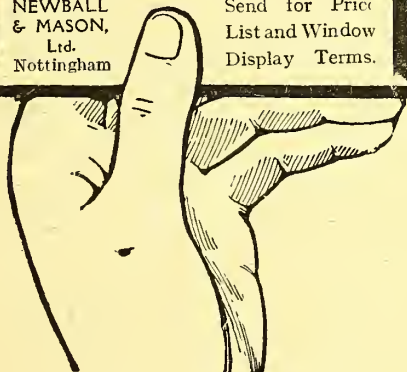
Now is the time
to order

MASON'S WINE ESSENCES

AVOID IMITATIONS

NEWBALL
& MASON,
Ltd.
Nottingham

Send for Price
List and Window
Display Terms.



**Sell a HONEY that
will bring repeat orders**

It is the thick, soft, creamy, delicious

"Imperial Bee"

New Zealand Honey

A BRITISH EMPIRE PRODUCT THROUGHOUT.
GUARANTEED PURE and WITHOUT PRESERVATIVES.

CASES per doz. carriage paid.

48/1's Glass Screw-top Jars at 14/0	48/1's Monopots ... at 12/6
48/1/2's " " " " 8/6	48/1/2's " " " " 7/3

If you cannot obtain supplies
through your Wholesaler, write to

A. J. Mills & Co. Ltd., 14 Tooley St., London, S.E.1
A. & P. S.

BOTTLES & GLASSWARE

OF EVERY DESCRIPTION
FOR THE TRADE

WHOLESALE ONLY

In all Colours

We make good

BOTTLES

—hand or machine made.

Large and well-organised
works enable us to meet your
immediate requirements for

DISPENSING, EMULSION,
COUGH MIXTURE,
SAUCE, EMBROCATION,
FEEDING BOTTLES, &c.

*Our prices are right
—and our Bottles are
British manufacture.*

Make us your standard Bottle suppliers
—we can meet your every need.

LAX & SHAW

LIMITED.

Albert Glass Works.
Hunslet, Leeds.

BELINDA GLASS WORKS, HUNSLET.
CLARENCE GLASSWORKS, HUNSLET.

TEL. ADD: FEEDERS, LEEDS. TEL. NOS. 27047, 23080 LEEDS

CORKS

for Chemists.

Send us your Enquiries
and compare our prices.
Wholesale and Export.

C. OLLEY & SONS, LTD.

Established 1844.

Camperdown St. and Gt. Alie St., London, E.1
Tel. No: Royal 2863. Tel. Ad: "Circumference, Ald, London."

METALLIC CAPSULES

for all kinds of Bottles and Jars.

The Tonkin Metallic Capsule Co.

Proprietors: C. Olley & Sons, Ltd.

VISKAP

BOTTLE
(AP)

The

ORIGINAL-BEST

and

ONLY BRITISH MADE.

SELF-FIXING, HERMETIC,

TRANSPARENT, OPAQUE, COLOURED

IMMEDIATE DELIVERY

FROM THE MANUFACTURERS

VISCOSE DEV. CO. LTD. BROMLEY KENT.

Pyramid Corks

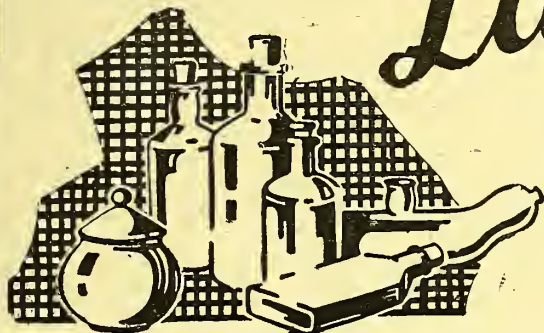


end your
cork troubles!

Parcel No. 1284 24 gr. First Quality 21/-
Cash on approval.
4 gr. 1 dr. to 2 oz.; 8 gr. 3 to 4 oz.; 12 gr. 6 to 8 oz.

N. W. Mitchell & Sons, Ltd.
The Cork Firm, Limehouse, London, E.14.

All prices free London ex stock.
Fair quantities only supplied to the
Wholesale Trade.
No Retailers supplied.



Lang's

BARGAIN PAGE

Separating Funnels, Spherical with stopper	50 c.c. 6d.	100 c.c. 10d.	250 c.c. 1/3	500 c.c. 1/9 each nett
Cylindrical Funnels, stoppered	50 c.c. 6d.	100 c.c. 10d.	200 c.c. 1/1	250 c.c. 1/3 each nett.
Cylindrical Funnels, without stopper ..	50 c.c. 4d.	100 c.c. 8d. each nett.		
Test Tubes, About	2" x 1/8" 1/6 7" x 3/8" 5/-	5" x 1/2" 2/6 7" x 1 1/4" 7/-	6" x 1/2" 3/- 8" x 1 1/2" 10/-	6" x 5/8" 3/6 6" x 3/4" 4/- gross nett.

Test Tubes, nests of six, boxed, 24/- per gross nett.

JULES LANG & SON Charlton Works, Charlton Place,
ISLINGTON, N.1.

Telegraphic Address: "Assorted, Phone, London."

Telephone: Clerkenwell 8770 (3 lines).

Flat Bottom Tubes,
for corks.

About	Per gross nett.
60 m/m x 10 m/m	1/-
75 m/m x 13-14 m/m	1/3
75 m/m x 10-11 m/m	1/3
76 m/m x 19 m/m	1/4
78 m/m x 11-12 m/m	1/6
80 m/m x 15 m/m	2/-
80 m/m x 11-12 m/m	2/-
82 m/m x 11-12 m/m	2/-
87 m/m x 16-17 m/m	3/6
90 m/m x 13-14 m/m	3/-
90 m/m x 11-12 m/m	3/-
109 m/m x 16-17 m/m	3/6
110 m/m x 16-17 m/m	3/6
100 m/m x 13-14 m/m	4/-
115 m/m x 13-14 m/m	4/-

“TYECAPS” SELF-FIXING
Use *for your* **BOTTLE CAPPING**

DURABLE SMART EFFECTIVE

Easily Manipulated. Sent out dry. Made in sizes to fit all shapes and sizes of bottles, for Corks, Stoppers and Sprinklers, in almost any colour, transparent and opaque, to suit all requirements.

ENQUIRIES SOLICITED

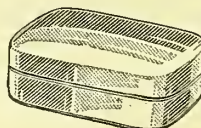
Manufactured in England by

JOHN TYE & SON, 457 CALEDONIAN RD., LONDON, N.7

In YOUR District

Individuals, Hospitals and
Institutions will welcome these
New Lines in—

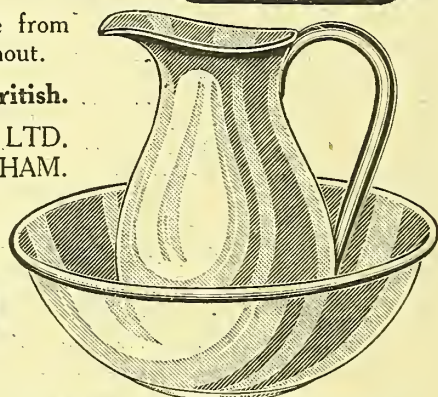
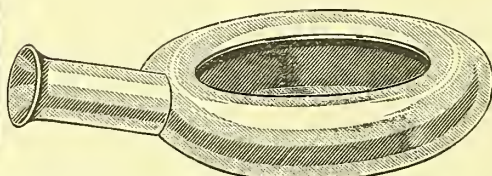
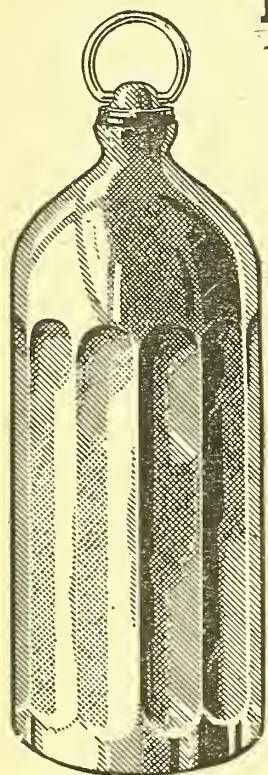
DIAMOND
ALUMINIUM
WARE



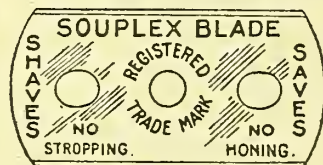
Handsome, Unbreakable, Hygienic. Made from
pure highly polished Aluminium throughout.

Exceptionally Strong. Entirely British.

THE LONDON ALUMINIUM CO. LTD.
WITTON - - - BIRMINGHAM.



HAVE YOU GOT A STOCK OF **SOUPLEX** SAFETY RAZOR BLADES? If Not, You are Missing Profits



SOUPEX are without doubt the finest
Safety Razor Blade (Gillette pattern)
the world produces, and every time you
sell one you make a permanent customer.

Thousands of pounds are being spent this year
to bring them before the notice of the public,
and to show **SOUPLEX** Showcards means quick
sales and good profits.

The sales of **SOUPLEX** have increased over
1,000 times in the past year, and every week
they grow.

The profits on **SOUPLEX** are good and cannot
be varied; no cutting is permitted; they sell to
the public at 2/6 per dozen and cost you 20/-
per gross.

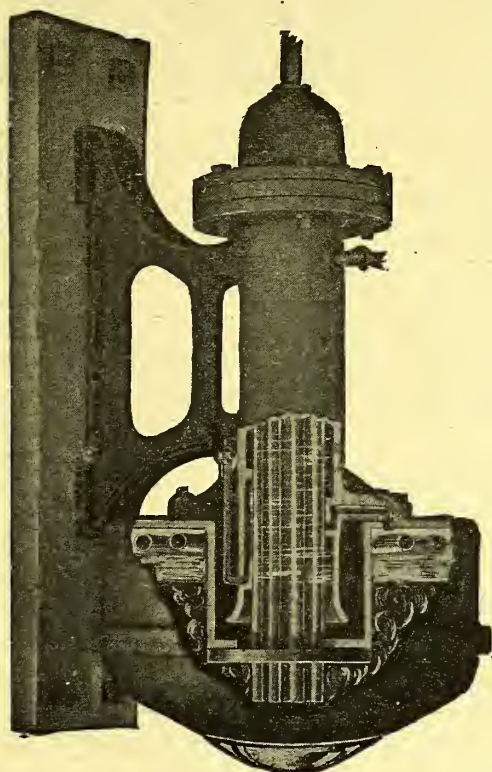
FROM GOOD WHOLESALE HOUSES
IN ALL PARTS OF COUNTRY.

WHOLESALEERS.

We supply **SOUPLEX** to wholesalers
only, and every wholesaler who stocks them
is sure of guaranteed profits; there is no
difficulty in selling them, for your traveller
to say **SOUPLEX** to a shopkeeper is to
book business. We supply special show-
cards with dummy packets for travellers,
and so prevent you losing samples and
money.

If you have not yet got **SOUPLEX** write at
once for prices and terms.

SOUPLEX LTD.
MORECAMBE, Lanc.



No. 2
WATER STILL.

Sectional view showing principle of operation.

WATER DISTILLATION

How much Steam, Time, Money, Space and Energy are wasted every day by not having an up-to-date method of making Distilled Water?

STOKES' AUTOMATIC WATER STILLS are the **LAST WORD** in **EFFICIENCY** and **ECONOMY**.

They hang on a bracket on the wall and day in and day out deliver Pure Distilled Water without any trouble or attention.

We stock 9 different sizes as listed below.

*If you send us a Post Card
we will gladly send you full
:: particulars and details. ::*

Size	Gallons per hour	Method of Heating	Boiler h.p. required	Price
0	$\frac{3}{8}$	Gas	—	£7 0 0
0	$\frac{3}{8}$	Paraffin	—	£8 7 6
000	2	Gas	—	£17 10 0
000	2	Steam	1 h.p.	£20 0 0
1	5	Steam	2 h.p.	£35 0 0
2	10	Steam	4 h.p.	£47 10 0
3	25	Steam	10 h.p.	£65 0 0
4	60	Steam	20 h.p.	£125 0 0
5	100	Steam	30 h.p.	£180 0 0

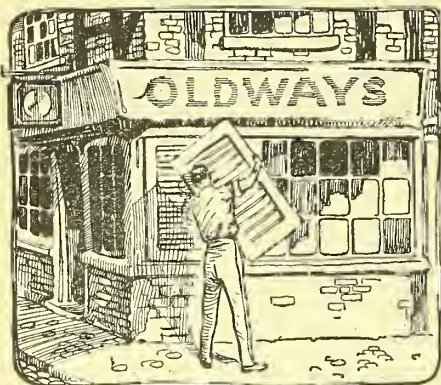
Sole Agents

THOMPSON & CAPPER, LTD.
Manesty Buildings, College Lane, LIVERPOOL

Telephone: Royal 2060.

Established 1843.

Telegrams: Sanitas, Liverpool.



You must close the shop— but why put up the shutters?

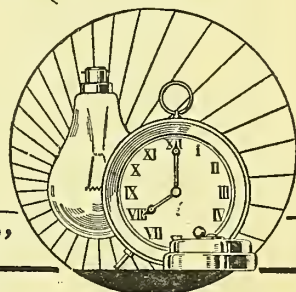
The early closing movement does not apply to streets but brings the people into them. Their leisure is your opportunity. Leave the Clock Switch in charge of your window lighting.

Set to light up or extinguish at any hour, this appliance will keep your window display before the public at a time when they seek relaxation, and have leisure to study your goods and prices.

The late lighting of shop windows increases trade, makes counter sales quicker, and improves the business value of a thoroughfare.

The British Electrical Development Association, 15 Savoy Street, Strand, W.C.2.

"PEOPLE BUY WHERE THE LIGHT IS BRIGHT."



OVERALLS

for
Chemists & Druggists

Jackets and Coats of very superior quality, made from the most reliable materials, smartly cut and thoroughly well finished in every detail.

WHITE DRILL JACKETS	6/11, 8/11, 10/6
KHAKI DRILL COATS	7/11, 10/6, 12/6, 14/11
WHITE DRILL COATS	 10/6
BLACK DRILL COATS	 16/6
UNBLEACHED COATS	 8/11

STOCK SIZES 34 to 44 chest : measure over waistcoat. Special pockets and little adjustments can be made without extra charge. POSTAGE on single coat 9d., but 20/- orders upwards carriage paid. SPECIAL PRICES FOR LARGE QUANTITIES.

GARDINER

& CO. (The Scotch House), LTD.

1, 3, 5 COMMERCIAL RD., LONDON, E.1.

Telephone : Avenue 6650

Established 1839.

BRANCHES :

Deptford, Edgware Road, Woolwich, Clapham Junction and Knightsbridge.

What did bad lighting cost you last year?

HOW much business did you fail to attract because of faulty illumination? How much of your stock was held up because glare from your lights prevented efficient display of goods?

Wrongly-shaded lamps which waste light on walls and ceilings are as bad as naked lamps. Holophane Units direct the light rays on your goods—free your shop and windows from annoying glare—make working and selling easier.

**FREE BOOKLET TELLS HOW
60% OF LIGHTING WASTE CAN
BE SAVED STRAIGHTAWAY.**

Statistics prove unscientific illumination to waste as much as 60% of light. The Free Holophane Booklet explains how to make the most of current consumption. Send before the shorter days set in!

Holophane

for Scientific Illumination

Lighting Advice and suggestions gladly submitted free of charge to bona-fide enquirers by the Holophane Technical Staff. Write for particulars.

HOLOPHANE LIMITED,
16 ELVERTON STREET, VINCENT SQUARE,
LONDON, S.W.1.

Look for the name "Holophane." Always use Holophane Fittings with Holophane Glassware.



GELLOPHANE

The ideal transparent wrapping absolutely harmless, air and grease proof, as used by all the leading Perfumers, Soap Manufacturers, etc., etc., for wrapping Soap, Drugs, Tablets, Bath Crystals, Perfumery, Surgical Dressings, Sponges, Puffs, Soothers, Tooth Brushes and all Articles of Toilet.

Cellophane can be had in sheets, all sizes and colours; also in the shape of Bags, Discs, Envelopes, printed or not, allowing the contents to be seen by transparency.

Cellophane wrapped goods look better—keep better—sell better.

Cellophane protects, beautifies and adds the quality touch.

Cello - Dressings. The only sterilisable dressing unaffected by time heat and moisture.

Prices, Samples and Particulars from

The **CELLOPHANE COMPANY**
7, 8 and 9 Bird Street, LONDON, W.1

Also 305-7, PRODUCE EXCHANGE, MANCHESTER.
35, MILLER STREET GLASGOW.

**Bright Windows
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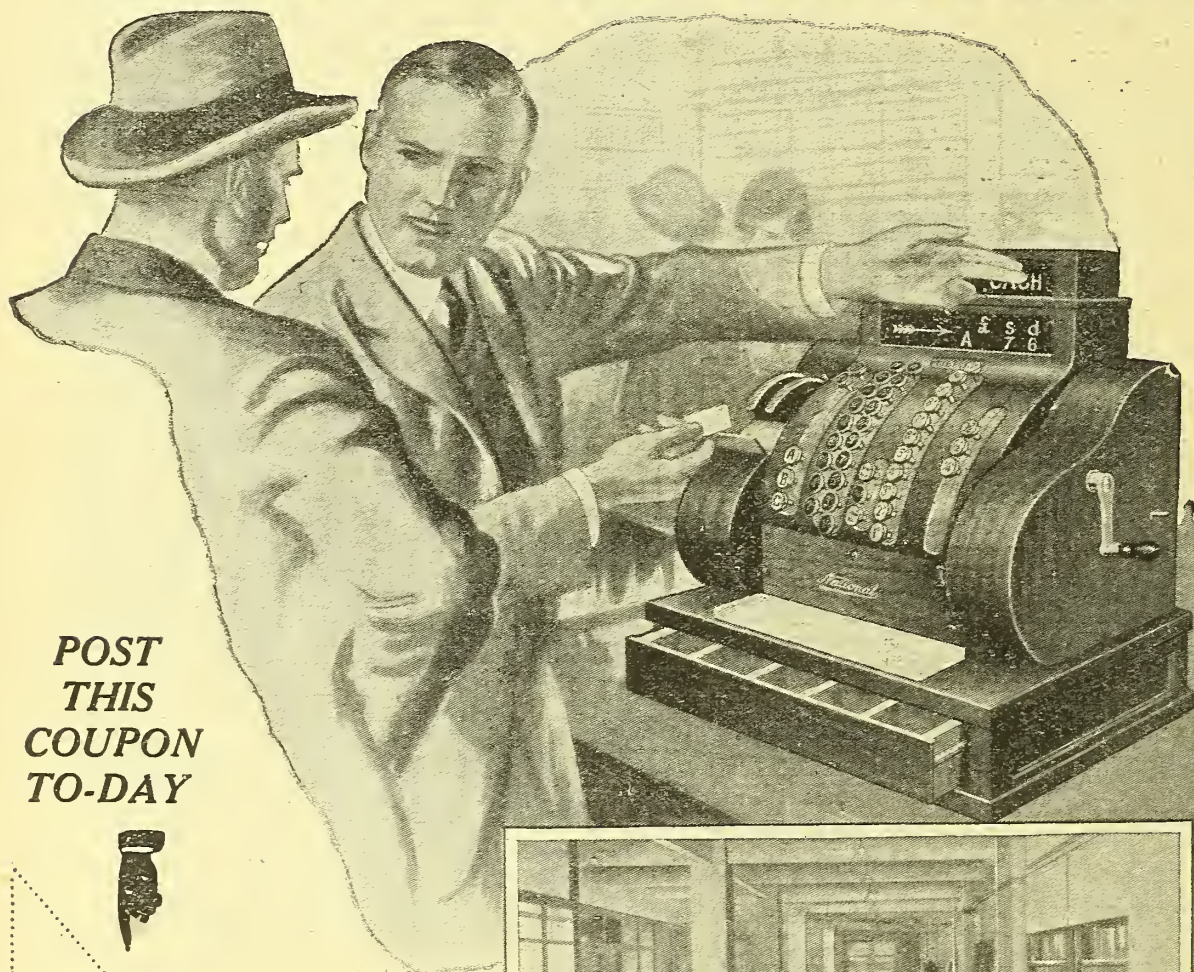
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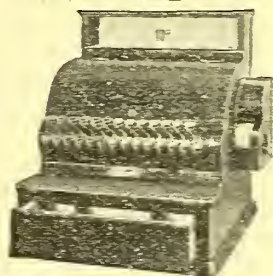
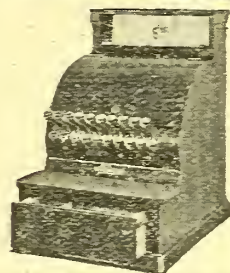
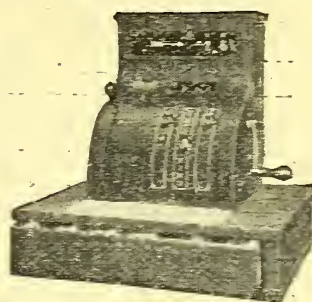
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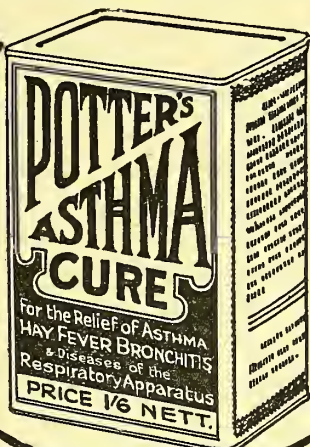
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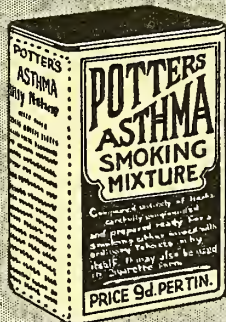
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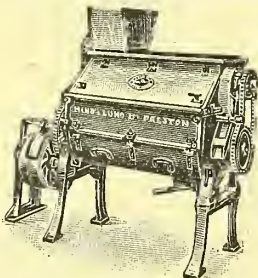
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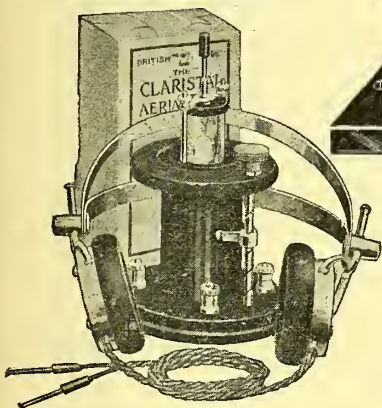
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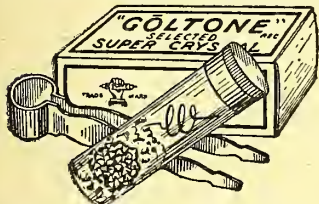
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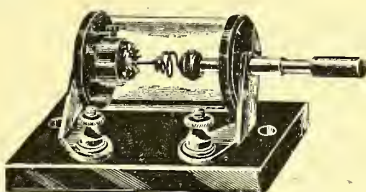
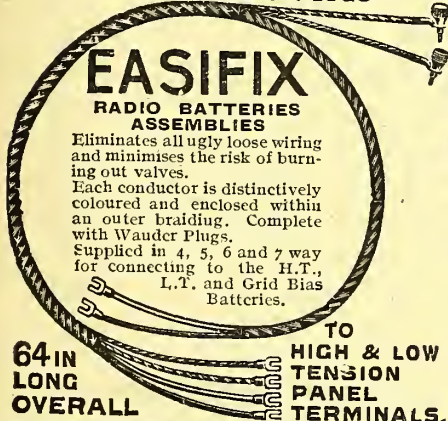


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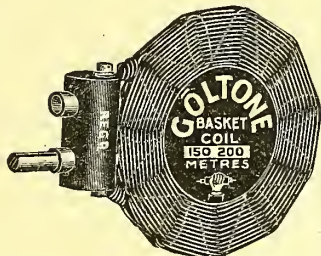
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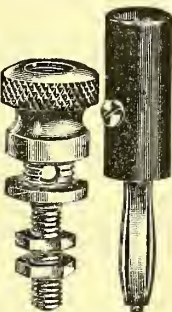
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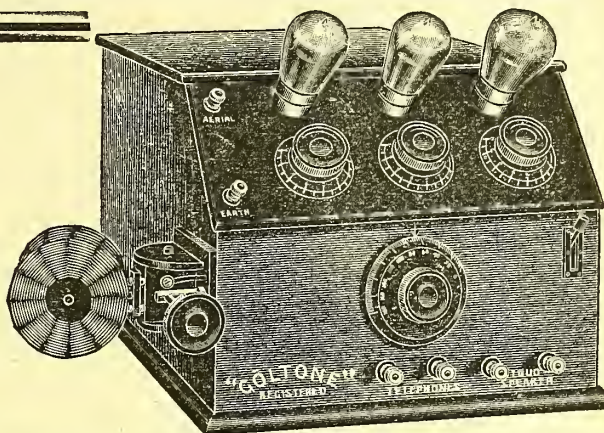
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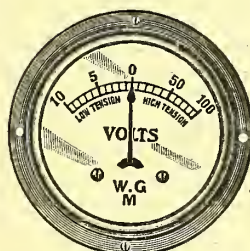
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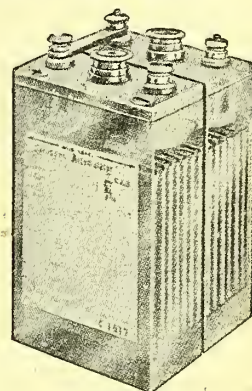


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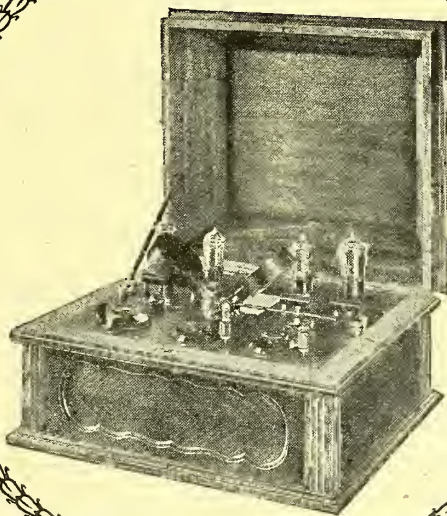
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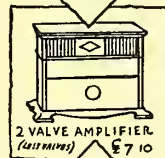


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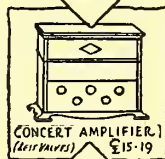
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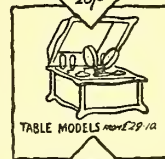
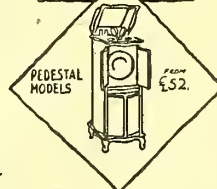
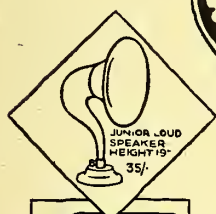


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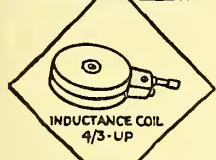
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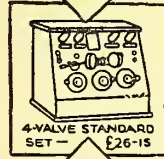
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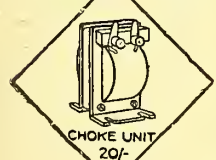
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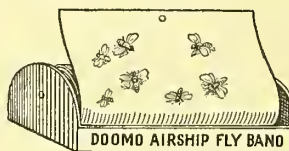


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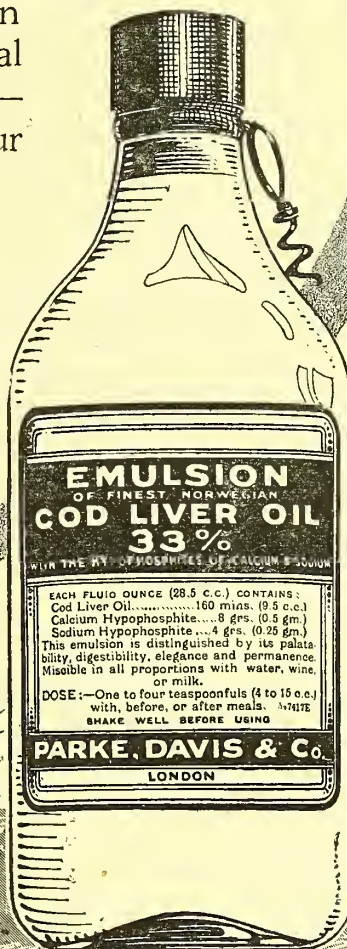
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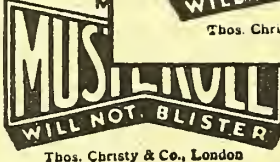
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comfort. Just rub it in
It is a clean, white
with oil of mustard. It
like the old-fashioned mustard p
Use Musterole for coughs, 'c
(it often prevents pneumonia),
throat, neuralgia, headache, rhe
tism, chilblains, pains and ache
the back or joints.

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940,707,051 Advertisements This Winter

Commencing October 13th, practically every paper and magazine of note will carry two or three of these forceful Musterole advertisements weekly!

A stupendous total of over 940 million advertisements is going to create a big, new demand for Musterole this Winter.

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Yet they cost you nothing but a penny stamp—they're free and welcome on request! Why not send a card to-day?

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matism
neuralgia
lumbago



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PRICE.

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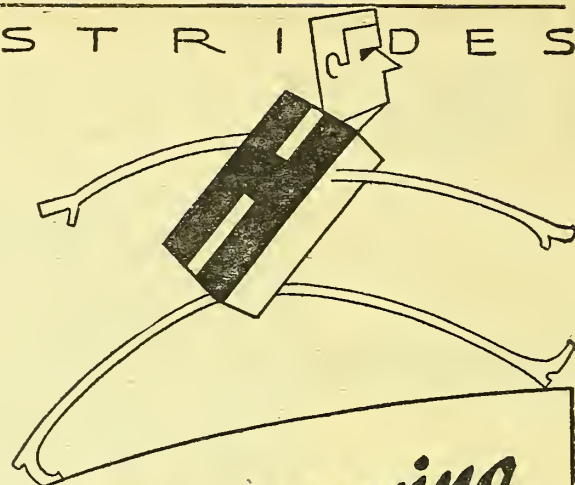
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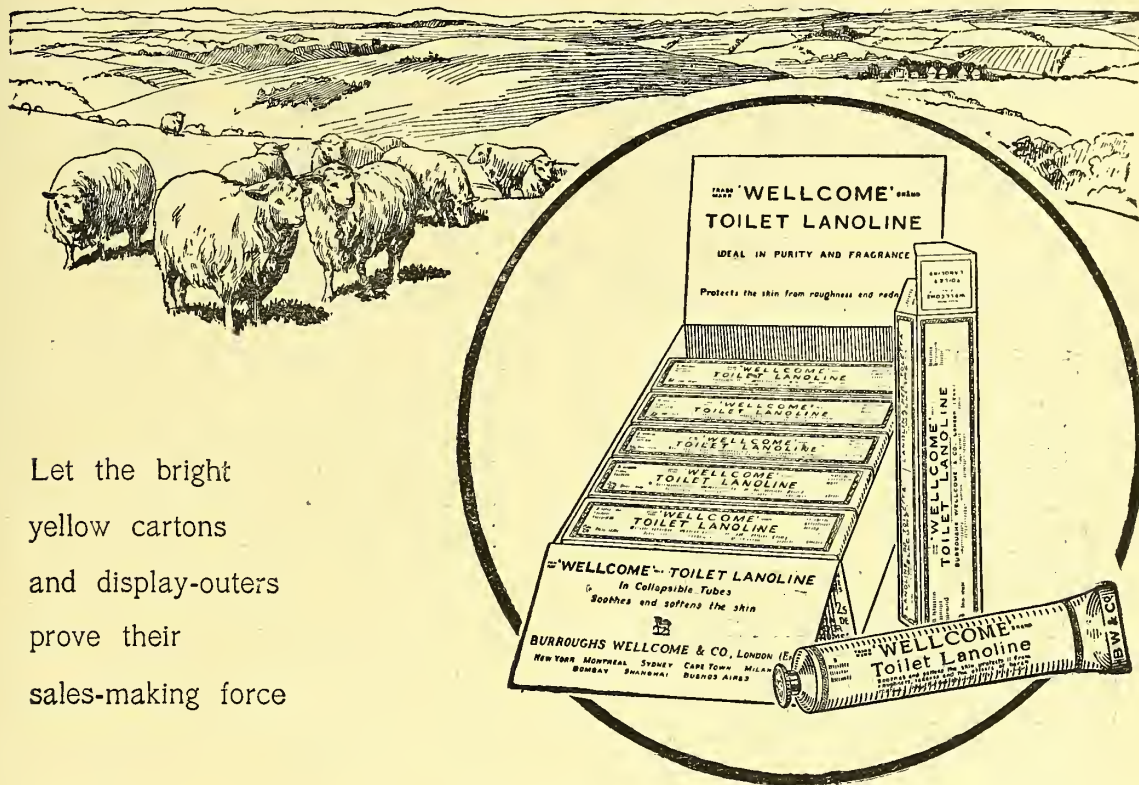
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and display-outers
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THE CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in the Overseas Dominions.

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Coming Events

Tuesday, October 20

Ealing and District Pharmacists' Association, Eden's Restaurant, High Street, at 8.30 p.m. Joint meeting with Ealing Branch of the Pharmaceutical Society. Mr. Frank Browne, F.I.C., Ph.C., on "Radium."

Wednesday, October 21

Pharmaceutical Society of Great Britain (Manchester, Salford and District Branch—Junior Section), Chorlton Town Hall, Stretford Road, at 7 p.m. Whist drive and dance. Tickets, 5s. 6d. each, from secretaries and officers.

Pharmaceutical Society of Great Britain (Birmingham and District Branch), Imperial Hotel, at 8.30 p.m. Captain H. A. Hill, B.A., on "The Army Dispensing Service."

Liverpool Chemists' Association, Royal Institution, Colquitt Street, at 8 p.m. Opening meeting of winter session. Address by Mr. T. Edward Lescher, O.B.E.

Thursday, October 22

Sheffield Pharmaceutical and Chemical Society, Atkinson's Café, The Moor. Smoking concert.

North London Pharmaceutical Association, Beale's Restaurant, Holloway Road, N.7, from 7 to 11 p.m. Whist drive and dance. Tickets, 5s. each, including refreshments, from H. Skinner, Royal Northern Hospital, N.7, or W. E. Swanston, 140 Hornsey Road, N.7.

English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Contracts

Birkenhead Town Council.—R. Sumner & Co., Ltd., Liverpool, drugs.

Dartford Guardians.—Corbyn, Stacey & Co., Ltd., drugs; A. Brown, Ltd., Leicester, druggists' sundries; Middleton Brothers, Ltd., disinfectant fluid.

Malvern Urban Council.—Malvern Drug Stores, drugs.

Reigate Guardians.—Mr. W. H. Fowler, Ph.C., drugs.

Watford Guardians.—E. M. & M. T. Chater, drugs.

Birmingham

Shoplifting appears to have obtained an increased vogue, and many prosecutions have taken place in the city, with some substantial fines.

At Birmingham Police Court, on October 9, Charles E. Sherman (33), described as a chemist's assistant, was remanded on a charge of stealing five postal orders.

The value (if any) of snuff as a prophylactic against influenza and a choice of remedies for mosquito bites are among topics that have been made prominent lately in the local Press.

The experiment of engaging panel doctors to lecture to their patients on health subjects has been inaugurated by the Birmingham Insurance Committee. Dr. O. B. Trumper was the first lecturer, and insured workers crowded the Dyson Hall, Aston, to hear him. Mr. W. Riley, chairman of the Insurance Committee, who presided, remarked that in Birmingham there were practically 400,000 insured workers, served by 346 panel doctors and 247 chemists' shops.

Liverpool

Mr. F. Pilkington Sargeant gave an address to the Birkenhead chemists on September 30, in which he dealt with current pharmaceutical questions.

Civic week was a great success so far as bringing large crowds into the central area of the city was concerned, but the financial benefit to chemists has been very small.

The choice of Mr. F. C. Bowring, chairman of C. T. Bowring & Co., Ltd., shipowners, produce brokers and oil merchants, as the new Lord Mayor of Liverpool will be of special interest to the drug trade. He was born in Newfoundland, where his firm have large interests.

The latest annual report on the health of Liverpool, covering the year 1924, is written jointly by Dr. E. W. Hope and Dr. A. A. Mussen, the past and present medical officers of health respectively. With its generous allowance of charts, it constitutes a mine of information on subjects relating to public health in the widest sense of the term. Legal proceedings were taken in respect of three articles of interest to chemists—a dispensed medicine certified to be deficient in potassium bromide to the extent of 14 per cent., a sample of Gregory powder 30 per cent. deficient in magnesia, and one of "cream of tartar," which was found to contain 53 per cent. of sodium pyrophosphate and 47 per cent. of maize flour. The number of licences issued under Section 2 of the Poisons and Pharmacy Act, 1908, was 23. The total number of samples submitted to bacteriological examination was 28,632, of which 9,631 were diphtheria swabs and 8,458 were rats. No evidence of plague was discovered. The illustrations include views of the Seamen's Dispensary opened during the year by the Lord Mayor.

Manchester

October 21 is a date that pharmacists, their assistants and lady friends are asked to remember. (See "Coming Events.")

The executive of the Manchester, Salford and District Branch of the Pharmaceutical Society have issued an appeal on behalf of the Manchester Royal Infirmary New Nurses' Home Fund. This has been sent to every pharmacist in business in the district covered by the

branch, and each one has been asked to make himself responsible for at least £1.

An accident which might have had disastrous consequences occurred in a suburban pharmacy on October 10. A youth had just purchased twopennyworth of potassium chlorate, and was holding the packet in his hand, when a chum asked him for a light from his cigarette. Result, quick ignition; and but for the immediate attention paid by the chemist, the youth might have been seriously injured.

Miscellaneous

THE WELLCOME HISTORICAL MEDICAL MUSEUM will be closed for cleaning and structural alterations from October 19 to November 30.

BURGLARY.—On October 8 the shop window of Mr. D. Colebrook, chemist and druggist, London Road, Bromley, Kent, was smashed and several cameras were stolen. It is believed that a motor-car was used by the burglars.

IN THE COURTS.—At the Old Bailey, London, on October 13, Thomas Lancelot Wyndham (51), L.R.C.P. Edin., etc., pleaded "Guilty" to a charge of stealing two cheques from a house in Prince's Square, W., and was bound over on the condition that he went to a home for two years.

COURSE IN WINDOW-DRESSING.—Huddersfield Municipal Technical College has added to the curriculum for the present winter session a course in window-dressing (theory and practice), under the instructorship of Mr. W. R. Oliver, of the Window Display Co., London. The course includes instruction in balance and symmetry, lighting, backgrounds, and colour schemes.

WINDOW-DRESSING AWARDS.—During the past fortnight a window-dressing competition has been held in connection with the Mansfield shopping festival. Mr. A. H. Bell, Ph.C., obtained first prize with a show of honey, and Mr. H. Twidale, chemist and druggist, obtained second and third prizes with shows of perfume and throat tablets respectively. Mr. Twidale died (see p. 545) on the day the results were announced.

FOOTBALL.—Results obtained by the B.D.H. Football Club since the opening of the present season include:—B.D.H. 4, Sterns Athletic 1 (at Tottenham, in the London Commercial League); B.D.H. 4, Slazengers 2 (at New Eltham, in the London Business Houses League).—Playing on their own ground at Catford, the Eno Recreation Club, in the first match of the season, scored a decisive victory over the Mathew Wrightman F.C. by eight goals to one.

EMBEZZLEMENT CHARGE.—At Tower Bridge Police Court, London, on October 8, William B. Robertson, commercial traveller, Barry Road, S.E., was remanded on a charge of embezzling sums amounting to £4 12s. 6d., the moneys of the Park Side Manufacturing Co., Ltd., druggists' sundriesmen, Westminster Bridge Road, S.E., his employers. The accused pleaded "Guilty," and said his salary of £3 10s. and a travelling allowance of 20s. weekly was insufficient. Mr. John W. Condon, managing director of the company, said that accused had been with them about three months. He had only to travel in London, and 20s. a week was an ample allowance. At the resumed hearing on October 14, Robertson was sentenced to two months' imprisonment in the second division.

MEMBERS' and friends of the Leeds Branch of the Retail Pharmacists' Union had a hot-pot supper at the Golden Lion Hotel on October 7, followed by a very pleasant evening, comprising violin solos, songs, and recitations rendered by the Misses Overend, F. Armitage and S. Armitage.

POPULAR SYNONYMY.—A correspondent (5/10) suggests that it was a descent for the "Daily Mail," shortly after publishing papers on drugs written by a distinguished pharmacist, to give as a clue to "paregoric" in a crossword puzzle that it is tincture of opium. Our correspondent also points out that Chambers's Dictionary (1914) gives the meaning of "paregoric" as "A medicine that soothes pain: tincture of opium." The Pocket Oxford Dictionary (1924) is, we notice, rather less inaccurate with the definition "A tincture of opium."

Irish News

Drug Contract

Under the central contracting system introduced by the Local Government Department in Dublin, Evans Sons Lescher & Webb, Ltd., Liverpool, have secured the contract for the supply of drugs and medicines to county and district hospitals and dispensaries in the Free State for the coming six months. The greater portion of these supplies has hitherto been contracted for by Messrs. Boileau & Boyd, Dublin, and as a result of the transfer that firm have given notice to fifteen of their employees to disperse with their services. Mr. Brunker, manager of Messrs. Boileau & Boyd, states that the value of the contract for the six months would be from £12,000 to £15,000.

Private Arrangement

The creditors of Mr. Thomas Nelson, druggist, Rathfriland, co. Down, were called together recently at Newry, when a statement of affairs was submitted, which disclosed ranking liabilities £592, while there were net assets amounting to £36 10s. It was reported that the debtor was going out of the business, but it would not be possible to sell it as a going concern, as the landlord would not give possession. An offer was put forward of a composition of 3s. in the £. That was not considered adequate, and it was eventually increased to one of 5s. in the £, payable as to 2s. 6d. in the £ in cash and 2s. 6d. in three months, the latter to be secured. This offer was accepted. The following are among the creditors: Ayrton, Saunders & Co., Ltd., £12; J. & J. Haslett, Ltd., £43; Thomas McMullan & Co., £16; Shaw & Jamieson, Ltd., £32.

Brevities

At Athlone District Court last week, before District Justice Rice, William Doulou, farmer, was fined 20s. for putting poisoned oats on his land to prevent, as he declared, the trespassing of his neighbour's fowl. Superintendent Fitzgerald, Civic Guards, for the prosecution, said that if the defendant served a thousand notices of his intention he was not justified in poisoning his neighbour's fowl.

Four representatives were appointed by the Wexford County Committee of Agriculture to confer with the Civic Guard authorities and a representative of the sheep breeders with a view of devising a scheme for the carrying out of the sheep-dipping regulations in a manner acceptable to owners. Several members of the committee stated that sheep-owners were strongly opposed to the proposed scheme of public dipping-baths.

An inquest was held at Mitchelstown, co. Cork, into the death of Michael Evan, known in the district as a "cattle doctor." Dr. John Dwyer stated that the cause of death was poisoning. The deceased had given Dr. Dwyer to understand that the poison was self-administered. Evans told him he had taken a half ounce each of corrosive sublimate, lead acetate, and zinc sulphate. The verdict was "Suicide whilst temporarily insane."

Belfast

A lecture will be given by Dr. Stanley White (Parke, Davis & Co.) in "The Shaftesbury," Donegall Place, Belfast, at 8.20 p.m., on October 26, on the "Manufacture of Serum and Vaccine." The lecture will be open to members, their assistants and medical friends. Colonel Dawson, M.D., P.M.O., Health Department, Ministry of Home Affairs, will preside.

The oldest establishment of its kind in the north end of Belfast is the Carlisle Circus Apothecaries' Hall, founded in the year 1875. Mr. R. W. McKnight, M.P.S.I., is the present proprietor. In the first prescription-book, dated September 20, 1875, there are prescriptions of some of the leading Ulster physicians of that period, including Sir William Whitla and the late Dr. James Cumming, Dr. J. W. Smyth, Dr. W. S. Love, Dr. B. Spedding, Dr. John Moore, Dr. McCrea, and Dr. McMurtry.

Scottish News

Brevities

On October 4 the marriage took place in Edinburgh of the Rev. James Lawrie, B.A., son of the late Mr. James Lawrie, chemist, Canongate, Edinburgh.

Mr. G. W. Allin, chemist and optician, for many years with Cockburn & Co., Ltd., Glasgow and branches, is opening a pharmacy at 31 Brisbane Street, Greenock.

Mr. H. H. V. Gibson has disposed of his business in Stewarton, Ayrshire, to Mr. J. G. Aitchison, and his branch shop at Stonehouse to Miss Alison Croy, who has been managing it for some time.

Dundee

A new chemist's shop is to be opened in Victoria Road, Dundee.

Mr. Charles A. Livie, 121 Blackcroft, Dundee, has sold his business to Mr. Nicoll. Mr. Livie intends opening a new shop in Downfield, the northern suburb of Dundee.

Glasgow

The death is recorded on October 10, at the age of seventy-eight, of Emeritus Professor Dr. Andrew Gray, the assistant and successor of Lord Kelvin. Professor Gray held the chair of Natural Philosophy in the University of Glasgow from 1899 until his retirement in 1923.

The Glasgow Pharmacy Club held the first of their season's whist drives in their rooms, 165 Hill Street, on October 6. Mrs. Robt. Dickson presented the prizes to the successful players, viz.:—Ladies: 1, Mrs. Morrison; 2, Mrs. Arthur Watt. Gentlemen: 1, Miss McNicol; 2, Mr. A. Scott. The prizes were given by Scott & Turner, Ltd., Newcastle-on-Tyne. A most enjoyable musical programme was contributed by the Misses Ethel and Clara Abbot and Mr. Samuel Dalziel, with Miss Alexander as accompanist.

Colonial and Foreign News

ADVERTISING MEDICINES.—The Yugo-Slav Government has issued a decree prohibiting the insertion of advertisements of medicines in the daily Press and other publications intended for the laity. Advertisements of medicinal agents may appear only in professional, i.e., medical and pharmaceutical, journals.

NEW GREEK CUSTOMS TARIFF.—The Greek Government proposes shortly to publish the definite text of the new customs tariff, after considering the modifications suggested by the Parliamentary Commission. This text is to serve as the basis for negotiations with other countries for the conclusion, before the end of the year, of commercial treaties, with the object of enforcing the new tariff from January 1, 1926.

SOAPS FOR YUGO-SLAVIA.—There is a very good market for toilet soaps in Yugo-Slavia, which is capable of considerable expansion. Austria is the chief source of supply, particularly for the cheaper kinds, followed by Germany. English soaps are preferred to all others, but their high price is a great obstacle to their sale; an ordinary bath soap retailing at 15 dinars costs wholesale 132 dinars per dozen tablets. A soap of average quality, attractively packed, yielding an abundant foam and possessing a fairly marked perfume would best suit the requirements of this market.

KENYA COFFEE has for a number of years past had a favourable reputation on the London market and visitors to Wembley will recall the unique exhibit of the beverage in the East African section. We mention this because a firm of pharmacists—Howse & McGeorge, of Nairobi, British East Africa, are the owners of coffee estates in Kenya and are making shipments to the London market. They send us a number of photographs of the estate showing young coffee in bearing and in flower, also coffee in process of pulping and fermenting. The importance of the Kenya industry is shown by the fact that 78,224 cwt. was exported during the first six months of this year.

Turkish News

SECOND TURKISH UNIVERSITY.—The Turkish Government has under consideration a proposal to establish a university in Angora, the new capital, for the teaching of law and of medicine.

SALE OF DAMAGED DRUGS.—The Director of Public Health in Constantinople has drawn up a list of drugs liable to deteriorate on storage. The sale of damaged drugs likely to prove injurious to health is forbidden, and if found, are to be immediately seized and destroyed.

NEW CUSTOMS TARIFF.—In view of the proposed issue of a new Turkish customs tariff, the administrator of indirect taxes has ordered a copy of the new French customs tariff from Paris. As soon as it has been translated it will be compared with the existing Turkish tariff, whereupon the elaboration of the new rates of duty will be taken in hand.

ALCOHOL MONOPOLY.—The administration of the State alcohol monopoly has decided to use oil of bergamot, or another similar essential oil, as the denaturant for alcohol supplied to Turkish manufacturers of eau de Cologne and perfumes. Under the new alcohol law pharmacists are not allowed to supply more than 200 grams of pure alcohol over the counter.



STUDENTS OF BOTANY OF THE FACULTY OF SCIENCE IN THE UNIVERSITY OF CONSTANTINOPLE AND THEIR PROFESSOR, DR. ESSAD BEY CHEREFFEDDIN.

TURKISH ABSORBENT COTTON FACTORY.—A company has been formed, financed by the new Industrial and Mining Bank, for the erection in Adana, in the cotton-growing district, of a factory for the manufacture of absorbent cotton wool and surgical dressings. The necessary machinery has already been ordered in Germany. Hitherto France and Italy have been the chief suppliers of surgical dressings.

TURKISH ALCOHOL MONOPOLY.—The manufacture and sale of alcohol in Turkey is now a Government monopoly. Persons requiring alcohol for industrial purposes have to make a declaration to the administration of the monopoly, giving the amount required, for what purpose it will be used, and where it is to be stored, also a statement to the effect that it will be used only in manufacturing processes or in the production of finished products, and will not be sold to other persons. A special register has to be kept in which all deliveries have to be entered, as well as their ultimate use. Pharmacists are permitted to sell to the public for medicinal uses an amount not exceeding 200 grams of pure alcohol. The sale price of pure alcohol (90 per cent.) in Constantinople has been fixed at 90 piastres, and of denaturated alcohol at 75 piastres, per kilo. Pharmacists and manufacturers of eau de Cologne will obtain their supplies (10 to 50 kilos) from the dépôt at Catabache, while amounts exceeding 50 kilos will be delivered from the dépôt at Tchilbouclii; the containers must be returned by the customers. The amount supplied is not to exceed a month's requirements. Holders of stocks of alcohol are obliged to sell these to the administration of the monopoly, at the price fixed by the latter, or return them to the country of origin.

American Notes

By "The Man from London."

LIQUOR PRESCRIPTIONS.—Physicians in Wisconsin say that the liquor prescription is a nuisance, and while the number of whisky prescribing doctors is dwindling, the few promiscuous script writers are a menace to the high standing of the medical profession. Of the 3,000 physicians in Wisconsin, more than half have abandoned writing liquor prescriptions. As the members of the American Medical Association were wholly responsible for liquor (whisky and brandy) being included in the new U.S.P. it will be interesting to watch the result of a resolution put to this body at the next session, suggesting that dispensing of liquor in sealed containers should be made by the government through appointed agents.

"THE CHICKEN PHARMACY" is the title given to a shop situated in the Petaluma district, California. Mr. J. E. Keyes, the owner, retired from twelve years of commercial poultry raising some years ago. But, having been a pharmacist prior to raising chickens, and tiring of doing nothing, Mr. Keyes opened his pharmacy for the express purpose of giving the 3,000 commercial poultrymen in a district noted as the "world's egg basket" the benefit of his experience as an expert poultryman and pharmacist. His trade-mark is a rooster stirring with a pestle in an old-fashioned mortar. This unique store was a success from the start.

THE VICK CHEMICAL COMPANY. Greensboro, North Carolina, manufacturer of Vapo Rub and other "Vick" products, recently announced the sale of the entire issue of 100,000 shares of common stock at \$41 per share. The original Vick Chemical Company was started by a druggist named Lunsford Richardson, who originated a number of formulæ for household remedies which he sold over the counter of his drug store under the trade name "Vicks." The aggregate floor space of 95,000 square feet is now required for its laboratories. It is claimed that especially designed machinery performs the compounding to the wrapping of the products eliminating the touch of the human hands, and adding the economical production.

SOCIETIES AT CHEMICAL EXPOSITION.—The list of chemical and allied societies and associations which will meet in New York during the week of the Chemical Exposition continues to grow. In addition to the big chemical industry banquet, which will be held under the auspices of a dozen or more organisations, individual meetings of a technical or business nature are being planned for the week of September 28 to October 3, which is Chemical Exposition Week at the Grand Central Palace, New York. Meetings which have been definitely scheduled, or are expected to be held, include an intersectoral gathering of the American Chemical Society, meetings of the American Ceramic Society, Society of Chemical Industry, Technical Association of the Pulp and Paper Industry, the Salesmen's Association of the American Chemical Industry, National Association of Finishers of Cotton Fabrics, and the American Institute of Chemical Engineers.

PHARMACY WEEK, first suggested by Dr. Robert J. Ruth at last year's convention of the American Pharmaceutical Association, is now definitely settled for the week of October 11 to 16. The professional and scientific background of the calling is to be brought to the front, and attention of the public drawn to the fact that, though the druggist carries a staggering burden of "other goods" that at times completely obscures the calling proper, every pharmacist has scientific training and experience which is at the service of the community. It is expected that fifty thousand retail druggists will be enlisted during Pharmacy Week, and such success obtained that will justify its permanent continuation. In an effort to help druggists of the district in their observance of Pharmacy Week, October 11 to 17, the Pacific Railways Advertising Company placed two advertising cards in each street car referring to the service rendered by the neighbourhood druggist.

ALCOHOL AS A MEDICINE.—General Lincoln C. Andrews, assistant secretary of the Treasury in charge of the appli-

cation of the prohibition laws, has declared in his statement of policy that: "The national prohibition laws make it unlawful to supply alcoholic beverages to those who want to buy them. This outlaw business, in catering to persons who still hanker after intoxicating drinks, is the real enemy of government, its elimination is the main objective for the Federal forces." Notwithstanding the fact that the majority of medical men in America consider alcohol, in the shape of whisky and brandy, now included in the new Pharmacopœia, to be a very valuable drug, nothing is said along these lines by the government officials, and, for some reason, the lay press fights shy of any information as to alcohol as a legal drug, and still harps on the beverage idea. It is this acceptance of liquor being entirely in the nature of a beverage, that has produced such consternation in the drug trade concerning the "bootlegging" of whisky by some law-breaking and unscrupulous druggists. The medical profession has declared whisky and brandy legal drugs, and hereafter, the colleges of pharmacy will have to teach their students this fact whatever may be the private opinions of the faculty.

French News

From the "C. & D." Paris Correspondent.

THE EXTENSION OF FISCAL INQUISITION for taxation purposes is a standing grievance. Tax-collectors have even gone so far, in certain cases, as to demand the production of prescription registers from pharmacists. It is pointed out that this is illegal, as forming a violation of professional secrecy.

RETIREMENT OF M. VILLIERS.—The Amical Association of Pharmacy Students organised a farewell fête in honour of M. Villiers, who, after occupying the chair of analytical chemistry at the Paris Faculty of Pharmacy for thirty years, has reached the limit of age (seventy). Twelve of his colleagues, including the Dean, were present at the ceremony. The students offered Professor Villiers a bronze statuette as a souvenir of their regard, and he returned the compliment by a donation of scientific works to the library of the Association.

THE "Chronique Médicale" has just discovered the portrait of Cadet de Gassicourt in the Jacquemart André Museum, described in these columns some years ago, and asks whether the Emperor's pharmacist's real name was as above, or simply Cadet Gassicourt. As a matter of fact, his name was Cadet simply. His father died, leaving seven orphan boys, and these, as they grew up, added to their names that of the village in which they had been reared, to facilitate identification. Thus Louis Claude was known as Cadet de Gassicourt, and his brother as Cadet de Vaux.

DR. HENRI BOUQUET writes on the question of natural mineral waters, their composition and qualities. Their composition, he remarks, is nearly always very complicated, and in consequence almost impossible to reproduce by artificial means. A chemical analysis usually ends with the word "traces." Also, are these salts mixed in the same manner as in a bottle? Undoubtedly they are largely "ionised." Then there are the gases, not only carbonic acid, but helium, krypton, neon, etc. There are, it is true, efficacious waters which are almost non-radioactive, but a new field of investigation has been opened by the general presence of radioactive elements.

M. ALBERT RICHAUD, professor of pharmacology and materia medica at the Paris Faculty of Medicine, whose death is announced, qualified at the Paris School of Pharmacy, and was for many years a hospital pharmacist in the capital. From 1893 to 1897 he was preparator of micrography at the school; in 1898 he took his M.D. degree, preparing his thesis on homocresol in the laboratory of Professor Béhal, and his Sc.D. in 1900 with a thesis on inulin and inulases. In 1905 he was appointed assistant professor at the Paris Faculty of Medicine. In 1912 he was nominated to the permanent committee for the revision of the Codex. During the war he served as surgeon-major. In 1922 he was elected vice-president of the Paris Society of Pharmacy, of which he had been a member since 1904.

Inquests

At Preston, on October 8, a verdict of "Found drowned" was recorded at the close of an inquiry concerning the death of Mary Ann Harris, who, it was stated, was the widow of a chemist and druggist (Mr. George Harris) who died in the United States. Mrs. Harris had had a seizure, and it was uncertain how she came to be in the River Ribble.

An inquest was held by the West Ham coroner, on October 8, on the body of Laurence H. Sims, a clerk, aged sixteen. The evidence showed that he had been taken to Queen Mary's Hospital, Stratford, E., in consequence of a fracture of the jaw. A medical witness stated that in the course of the operation it was necessary to use warm air in order to keep the teeth of the patient dry. The warm air was used in a dental syringe. Ether and oxygen was the anæsthetic employed. On the third application of the warm air syringe an explosion occurred at the back of the boy's throat. Acute hæmorrhage followed, and despite every attention the patient died within ten minutes. Mr. Percival Cole, F.R.C.S., Harley Street, who performed the operation, said that the light at which the dental syringe was warmed was a full six feet away from the operation table. After a third application of the hot air a tremendous explosion occurred, and within two or three seconds the whole apparatus burst into flames. During the war 1,600 cases of this sort passed through his hands, and what was done in this case was merely routine work. The explosion, in his opinion, must have arisen from the mixture of vapours; and that these vapours were inflammable had hitherto been out of surgical purview. The witness himself used the syringe, and was satisfied that it was not red-hot. Another witness stated that death arose from rupture of the bronchi and collapse of the lungs. All the medical men present explained that they had never heard of a similar case. The jury returned a verdict to the effect that death was accidental.

A verdict of "Death from natural causes" was recorded at a Birmingham inquest, on October 5, on the body of Annie Meers, St. George's Street, who died on October 2. It was stated that Mrs. Meers had received medicine from a man named Prosser, and the husband informed the deputy-coroner that he understood Prosser was a qualified doctor. A chemist, giving evidence, said that he had known Prosser as a customer for the past two years. Prosser was in the habit of asking for definite quantities of a drug, which was placed in a bottle and water was added. Prosser never gave a prescription. He was generally given a label to put on the bottle. He never asked for anything of a poisonous nature. Witness knew that Prosser was the son of a doctor. Charles Abernethy Prosser, Jamaica Row, stated that he was a dispenser and doctor's assistant. The Deputy-Coroner: What doctors have you assisted?—I assisted my father for twenty years. Prosser added that he charged Mrs. Meers 1s. for medicine; he paid 2d. or 3d. at the chemist's. On one occasion he felt her pulse and acted as if he was a qualified medical man. He had not the faintest idea she was going to die. Mrs. Meers used to address him as "doctor," but he had not told her he was a doctor, and never gave a prescription. He had attended two other women. The Deputy-Coroner: Are you entitled to call yourself a dispenser?—Yes, under the old Act. The deputy-coroner said that while the medicine supplied might have been harmless, the trouble was that Prosser had represented himself to be a doctor. Prosser replied that he was always called "doctor," and never contradicted it. He had not called himself a doctor. Further evidence was given by Dr. W. H. Snaith and Dr. Bunting, who agreed, following a *post-mortem* examination, that the medicine sold by Prosser was in no way responsible for death.—Prosser was subsequently charged in the Birmingham Police Court with having obtained the sum of 1s. by means of a trick. Mr. M. P. Pugh, prosecuting solicitor, said, however, that he did not consider the facts in his possession could justify a conviction, and suggested that any proceedings against the defendant should be taken under the Medical Act. The defendant was accordingly discharged.

Legal Reports

A Cheque Transaction.—At West Malling, on October 9, Viscount Torrington, Yalding, was charged with having obtained money and certain articles with intent to defraud. Mr. A. L. B. Thesiger, prosecuting on behalf of Mr. H. C. H. Oliver, chemist and druggist, stated that on September 23 Lord Torrington called at Mr. Oliver's shop and asked him to cash a cheque for him. The cheque was drawn on an ordinary piece of paper on the National Provincial Bank, Ltd., Nottingham, for £10. It was signed and endorsed by Lord Torrington. Mr. Oliver was surprised at the cheque being made on a piece of paper, and showed some hesitation in cashing it. Lord Torrington assured Mr. Oliver that it was all right, and the latter advanced £5, promising the balance in a day or two. Lord Torrington made some small purchases, and on the next day called for the balance. By that time Mr. Oliver received information from his bank which made him put Lord Torrington off. In the meantime communication was established with the Nottingham bank, and the balance was not paid. No explanation had been given; but Mr. Oliver had received a money order for £5, which no doubt, was sent by Lord Torrington. Mr. H. C. H. Oliver bore out counsel's opening statement, adding that when Lord Torrington called he did not know him. Cross-examined by Mr. Newton: You had a money order for £5?—Yes. And you said it was not in full settlement?—Yes. And I still consider I was defrauded, and if it was in full settlement I should have gone on and continued the proceedings in the interests of my fellow-tradesmen. Mr. Newton: I do not know whether that should go on the depositions, but it shows vindictiveness. You refused to take anything on account?—I did not cash it. After formal evidence had been given on behalf of the Bank at Nottingham, Lord Torrington was committed for trial.

Validity of a Contract.—In the Court of Appeal (consisting of the Master of the Rolls and Lords Justices Warrington and Sargant); on October 13 and 14, Mr. Thomas Jubb, Keighley and Hunslet, Yorks, appealed from a judgment of Mr. Justice Lawrence, holding that he was bound by a contract to purchase for £54,600 the freehold premises and plant of the York Glass Co., Ltd., at Fishergate, York. On a subsequent inquiry as to the damages sustained by the York Glass Co. owing to the repudiation of the contract, Mr. Justice Lawrence assessed the damages at £21,000 (*C. & D.*, July 25, p. 120). Mr. Archer, K.C., for the appellant, said that the dispute arose out of an action brought by the York Glass Co. for specific performance of the contract to buy. In that claim there were two defences—(1) that Mr. Jubb was insane and known to be insane when he made the contract, and therefore that the contract was not binding upon him, and (2) that even if the contract was valid the circumstances in which it was made were such that it could not be enforced. At a later stage in the proceedings the company abandoned the claim of specific performance and claimed damages. The judge held that Mr. Jubb was undoubtedly of unsound mind at the time he made the contract, yet that the vendors were honest people and did not know it. It was impossible for the court to reverse that finding of fact. The appellant's case was that as Mr. Jubb was in fact insane at the time he made the contract he could not now be held to it; and that even if lunacy did not discharge a man of his contract, still this contract was so extraordinary in its nature that in equity he ought not to be held to it. Mr. Preston, K.C., for the respondent, said that the judge had found that it was a fair contract. Mr. Archer said he did not accept that: even if the judge did so find, he should ask the court to reverse the finding. Mr. Archer further contended that the judgment of Mr. Justice Lawrence as to the value of premises was not satisfactory. In his submission, there was no reasonable chance of getting £54,600 for the property except from a lunatic. The Master of the Rolls intimated that the court would not interfere with the judge's finding of fact as to the reasonableness of the price. Mr. Archer then argued that the damages were excessive. The hearing was adjourned.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office.

G. W. SAWDON, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of chemists, druggists, drysalts, oil and colour men, dealers in pianos, gramophones, and other musical instruments and gramophone records, etc. The directors are: G. W. Sawdon and Daisy Bush. R.O.: 795 Lea Bridge Road, Walthamstow, London, E.17.

EDWIN BURGESS, LTD. (P.C.).—Capital £5,000. Objects: To acquire the business carried on at 59 Gray's Inn Road, W.C., as E. Burgess, and to carry on the business of manufacturers and sellers of proprietary medicines, chemists, etc. The directors are: E. Burgess and Mrs. K. Burgess. R.O.: 59 Gray's Inn Road, London, W.C.1.

WALTER COOKE (LEICESTER), LTD. (P.C.).—Capital £2,000. Objects: To carry on business as bleachers, dressers, finishers, dyers, and fabric finishers, manufacturers of and dealers in vitriol, starch, dyeware and bleaching, dyeing, dressing and finishing materials, chemists, druggists, drysalts, colour men, etc. Solicitors: Browne, Son & Jacobson, Nottingham.

W. CORNISH & CO., LTD. (P.C.).—Capital £44,000. Objects: To acquire the business of produce merchants and brokers now carried on by W. E. G. Cornish at 87A Leadenhall Street, London, E.C., and 31 High Street, Hull, as W. Cornish & Co., to import, export and deal in oil, seed, turpentine, resin, lard, fat, tallow, tea, rubber, chemicals or dyes, etc. R.O.: 22 Basinghall Street, E.C.3.

RYDING & CO. (TRAFFORD PARK), LTD. (P.C.).—Capital £5,000. Objects: To acquire the business of a chemical manufacturer and merchant carried on by John Ryding at 24 and 25 The Hives, Mosley Road, Trafford Park, Manchester, and to undertake all or part of the liabilities in connection therewith. The directors are: J. Ryding, W. H. Birch, and G. L. Hartley. Solicitors: Crofton, Craven & Co., Manchester.

INTERNATIONAL DEODORISER SYND., LTD. (P.C.).—Capital £1,000. Objects: To adopt an agreement with F. C. Andrew to develop and turn to account the business and assets comprised therein, to manufacture air-cleansing, deodorising, disinfecting and fumigating machinery, etc. The directors are: N. H. Brandon, F. C. Andrew, and W. Jenks. R.O.: 69 Basinghall Street, London, E.C.2.

GILL, ROBERTS & CO., LTD. (P.C.).—Capital £7,000. Objects: To carry on the business of drysalts, grocers, chemists, druggists, importers, exporters, refiners, growers, grinders and brokers of and dealers in food, spices, provisions, consumable articles and produce of all kinds, perfumers, etc. The directors are: W. Walker, G. E. Roberts, H. W. Jackson, and E. Gill. Solicitors: J. J. Macbeth, 7 Chapel Walks, Manchester.

BRITISH JAMAICA ANNATTO PLANTATIONS, LTD. (P.C.).—Capital £3,000. Objects: To acquire, improve, manage, plant and cultivate landed property in the West Indies, to carry on in the United Kingdom, Ireland and elsewhere the business of importers, exporters and merchants of West Indian and other produce, cultivators, winners and buyers of annatto seed, dyes, woods, coffee, cocoa, ginger, sugar and any other vegetable, mineral or colonial produce, charterers of ships, etc. The directors are: C. C. Henriques and S. A. Cunningham. R.O.: 11 Queen Victoria Street, London, E.C.4.

ANGLO-POLISH CHEMICAL SYNDICATE, LTD. (P.C.).—Capital £10,000. Objects: To manufacture in Poland and other countries synthetic ammonia, nitrogenous fertilisers and other chemical, agricultural and industrial products, to acquire from the Polish and other Governments and public bodies and persons, concessions, licences and rights for the construction and working of hydro-electric and other forms of power stations, etc. Solicitors: Lewis & Yglesias, 6 Old Jewry, London, E.C.2.

JOHN A. BREMNER & CO., LTD. (P.C.).—Capital £10,000. Objects: To acquire the business now carried on in Manchester, London and elsewhere as "John A. Bremner & Co.," and to carry on the business of oil manufacturers and extractors, purifiers, refiners and

blenders, manufacturers, importers and exporters of and dealers in oils and oleaginous substances of all kinds, greases, paints, colours and varnishes, chemists, oil and colour men, etc. The directors are: E. B. Irwin and H. G. Irwin. R.O.: 72 Lower Thames Street, London, E.C.3.

JOHN BELL & CROYDEN, LTD.—The report for the year ended January 31, 1925, shows a loss of £25,040, compared with £31,788 for six months to January 31, 1924. The report states that in December last directors asked the shareholders to take up an issue of £50,000 7 per cent. income bonds. The response was so small that subscriptions were returned. Following this, a finance company associated with certain of the directors in a guaranteed overdraft of £30,000 withdrew their support, and requested repayment of their proportion of amount advanced. The directors subsequently endeavoured to place £50,000 7 per cent. five-year notes, and up to the present approximately £20,000 of these notes have been issued. They expect to be able to place the balance of £30,000.

HEPPILLS, LTD.—The first annual general meeting was held on October 12, at 16 Grosvenor Place, S.W. Sir A. A. Hutchings, K.B.E. (chairman of the company) presided, and, in moving the adoption of the report and balance-sheet, said the trading profit and income for the period is £33,601 6s. 4d. The net profit, before deduction of directors' fees, bank interest and depreciation, but charging to revenue £15,145 6s. 7d. in respect of advertising, is £24,518 18s. 1d. The average audited net profit for the three years and three months ended March 31, 1923, shown in the prospectus, was at the rate of £21,485 10s. 1d. per annum. After deduction of the charges first named and £800 for income-tax reserve, the net profit remaining is £21,587 4s. 1d. This net profit has been dealt with in the following manner: There has been paid the cumulative preference dividend at the rate of 7 per cent. per annum to October 1, 1924; also the cumulative preference dividend at the same rate to April 1, 1925, absorbing (including income tax) £9,001 1s. 6d.; there has been written off from this net profit £3,600 4s. 2d. in respect of underwriting and brokerage expenses, these expenses being, of course, non-recurring charges; and there remains £8,985 18s. 5d. available for distribution, out of which the board recommends payment of a dividend of 7 per cent. on the ordinary shares for the period ended April 30, 1925. The assets stand at £296,956 9s. 1d., against £272,665 12s. 6d., the prospectus net assets, representing an increase of £24,290 16s. 7d. The properties are set down at cost, but the company is advised that certain of these, owing to the favourable terms upon which they were acquired, have an increased value. Cash, investments, debtors and stocks are £131,790, against creditors £22,346. The original vendor has thought fit to make a claim for interest on a portion of the purchase consideration, which is disputed. On the other hand, the company claims against him various amounts as being owing. It is intended to discharge the bank loan of £48,000 as soon as possible. Goodwill value must have been increased by the expenditure of £15,145 6s. 7d. upon advertising, but the board has decided to charge the whole amount to revenue account. Continuing, the chairman said: "There is considerable scope for increase in your business, particularly in the wholesale and manufacturing departments. Since the date of the public issue, freehold works have been acquired, including 6½ acres of land. The ultimate effect will, it is believed, lessen the cost of production and increase the revenue by the manufacture of certain articles which have hitherto been purchased. The company is acquiring additional valuable leases favourably situated in the West End and other parts of London, and also other assets for the purpose of adding to its pharmacies. We are also co-operating in carrying on important branches in Paris, Nice and Monte Carlo. Those shareholders who travel to the Continent will realise the importance of these branches as supplying a long-felt want. Since the date of the balance-sheet the turnover and orders on hand have increased. Your board has decided to offer to all shareholders, in proportion to their respective holdings, the unissued ordinary shares of £1 each, at par, a total of 30,940 shares, and application forms will be forwarded on October 13 to every shareholder." The report and accounts were unanimously adopted.

Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1925, p. 289.

(From "The Trade-marks Journal," September 23, 1925.)

- "DEVOLITE"; for all goods (1). By English China Clays, Ltd., High Cross Street, St. Austell, Cornwall. 461,514. (Associated.)
- "COLONO"; with picture of man hoeing; for chemicals (1). By Rabone Bros. & Co., 297 Broad Street, Birmingham. 461,539. (Associated.)
- "IRISOL"; for coal-tar dyestuffs (1). By Farbenfabriken vorm. Friedr. Bayer & Co., Leverkusen, Germany. 461,560.
- "REDUCINE"; for a veterinary medicine (2). By R. J. H. K., S. D., and W. H. Lambert, A. N. D. Anderson, and E. H. Hastings, Mount Anthony, Ardce Road, Rathmines, Dublin. 459,212. (Associated.)
- "SUSOR" and "TYPHOR"; for veterinary vaccines (2). By Genatosan, Ltd., 43 Regent Street, Loughborough, Leicestershire. 459,909/913.
- "MUCIDAN"; for all goods (2), (3), and (48). By Rhenania Verein Chemischer Fabriken Actien-Gesellschaft, 53 Kaiser-Wilhelm Ring, Cologne, Germany. 459,951/952/953. (Associated.)
- "DERMODEX"; for chemicals (2). By Richardson & Son, 439 Hesse Road, Hull. 461,278.
- "LISTEROL"; for antiseptic and disinfecting fluids (2). By D. McDougall & Co., Ltd., 18 Charles Street, St. Rollox, Glasgow. 461,359.
- "SALZUM BATH SALTS" with label device; for bath salts (3) and (48). By H. J. Smith (Chemists), Ltd., 2 Stanley Road, South Acton, London, W.3. 449,579/580. (Associated.)
- "TOM WARD" facsimile signature; for medicinal chemicals (3). By Tom Ward, Ltd., 15 Lapage Street, Bradford. 453,955. (Associated.)
- "LACTOGEN"; for medicinal chemicals (3). By Nestlé & Anglo-Swiss Condensed Milk Co., 6-8 Eastcheap, London, E.C.3. 460,158. (Associated.)
- "THE KNIGHT OF THE BURNING PESTLE" with device of mortar and chessman holding pestle; for pills and medicinal powders (3). By Morison & Co., Ltd., 19 Percy Circus, London, W.C.1. 459,459.
- "MOGARETTES"; for medicinal chemicals (3). By C. Norman, 15 Montpellier Walk, Cheltenham. 460,825.
- Device of laurel wreath on stand; for medicinal chemicals (3). By Foreign Chemists, Ltd., 15 Great St. Andrew Street, London, W.C.2. 461,383.
- "EUDO"; for ointment (3). By G. E. Sully, 20 Blake Road, New Southgate, London, N.11. 461,591.
- "KURITIS"; for all goods (3). By Kuritis, Ltd., Pharmacy Buildings, Penrhyn Avenue, Rhos-on-Sea, Colwyn Bay. 461,674.
- Oval device of rings and arrows; for syringes, hypodermic needles, etc. (11). By Injecta Aktien Gesellschaft, Coppenickerstrasse 109A, Berlin, S.O.16. 458,744.
- "KEN-DAVE"; for surgical instruments, etc. (11). By E. J. W. Folliot, H. Stone, and J. T. Steele, 1 Market Lane, High Street, Southampton. 461,512.
- "BREDOLA"; for food substances (42). By Imex, Ltd., 6 Martin Lane, Cannon Street, London, E.C.2. 460,195.
- "CACOS"; for food substances (42). By W. Thompson, 10 Prospect Row, Birmingham. 460,632.
- "QUILL" with device of two crossed quills; for goods (47) and for perfumery, etc. (48). By G. W. Goodwin & Son, Ordsall Lane Soap Works, Manchester. 461,037. (Associated.)
- "REMOL"; for a detergent for cleaning cotton and woollen goods (47). By W. P. Bridge, 6 Brown Street, Manchester. 461,549.
- "AMOURETTE"; for perfumery, etc. (48). By The United Drug Co., Ltd., Rexall Building, Waterway Street, Nottingham. 459,710.
- "STARINA"; for perfumery, etc. (48). By Petroleum Products, Ltd., 308 Tower Building, Water Street, Liverpool. 460,197.
- "TRANSPARIT"; for viscose and cellulose goods (50). By Wolff & Co., 24 Langestrass, Walsrode, Germany. 454,598.

(From "The Trade-marks Journal," September 30, 1925.)

- Device of bird's head on triangular shape; for photographic chemicals (1). By J. Halden & Co., Ltd., Rowsley Grove, Reddish, Lancashire. 454,363. (Associated.)
- "ZETCORT"; for a chemical dressing for hard tennis courts (1). By F. J. Oldacres, 44 Bedford Row, London, W.C.1. 460,955.

- "GRELASULFON"; for all goods (1). By Chemische Fabrik Griesheim-Elektron, 31 Gutleutstrasse, Frankfurt-on-the-Main, Germany. 460,963. (Associated.)
- "DEPENDEX"; for chemicals (1) and (2) and for goods (47). By C. C. Williams, Ltd., 64-68 Summer Row, Birmingham. 461,127/123/129.
- "ENOBAR"; for chemicals (1). By Rabone Bros. & Co., 297 Broad Street, Birmingham. 461,507. (Associated.)
- "MERMAID OIL"; for a veterinary oil (2) and for a medicated oil for external use (3). By J. Glendenning, Waterloo Place, Londonderry, Ireland. 456,315; 455,997. (Associated.)
- "OZALINE"; for a chemical for killing rats, etc. (2). By A. R. Hester, 70 Caythorpe Street, Moss Side, Manchester. 460,063.
- "HUDFAWL, HUDSON'S UNIVERSAL DESTROYER FOR ALL WEEDS ON LAWNS" ("Hudson's Universal" disclaimed); for a weed destroyer (2). By S. C. Hudson, 601 Green Lanes, Hornsey, London, N.8. 460,948.
- "CABALCANIS"; for veterinary chemicals (2). By Snowdrift Trading Co., Ltd., 40-44 Holborn Viaduct, London, E.C.1. 460,876.
- "VOXAK"; for indigestion powder and cough linctus (3). By The Dental Therapeutic Co., 9 Clinton Place, Seaford, Sussex. 457,840.
- "JUNOFLORES"; for medicinal chemicals (3). By Edwards' "Harlene," Ltd., 20 Lamb's Conduit Street, London, W.C.1. 459,143. (Associated.)
- "YOGIN KONFEKT" ("Konfekt" disclaimed); for medicinal chemicals (3). By Pharmakon Aktiengesellschaft Chemische Fabrik, Ludwigsstrasse 37, Frankfurt-on-Main, Germany. 459,941.
- "CODLIVEX"; for internal medicines (3). By John Bell & Croyden, Ltd., 50 Wigmore Street, London, W.1. 460,647.
- "BROWNCHDUN"; for ointment (3). By E. Yates, 75 Lordsmill Street, Chesterfield. 460,857.
- Device of stoppered bottle and floral background; for medicinal chemicals (3). By Foreign Chemists, Ltd., 15 Great St. Andrew Street, London, W.C.2. 461,382. (Associated.)
- "VITEASTMINS"; for a medicine (3). By J. Hewson, 65B Long Acre, London, W.C.2. 461,349.
- "SOBITA"; for a medicine (3). By Howards & Sons, Ltd., Uphall Road, Ilford, Essex. 461,385.
- "St. PETER'S OIL"; for a liniment (3). By Mandall & Co., Ltd., Tower Works, Stepney Road, Newcastle-on-Tyne. 461,677.
- "TEE-TOH"; for beverages (42). By J. Robertson & Son, 44 Tail's Lane, Dundee. 461,726.
- "CREAMORE"; for face cream (43). By Ida Stewart, Sweet Croft Lane, Hillingdon, Uxbridge. 458,835.
- "PERFUMIGATOR"; for perfumery, etc. (43). By A. W. J. Laundry, 114A Springfield Road, Brighton. 461,441.

(From "The Trade-marks Journal," October 7, 1925.)

- "BASALLAX"; for chemical water softeners (1). By The Paterson Engineering Co., Ltd., 83 Kingsway, London, W.C.2. 460,765.
- "PATESIA" on cog wheel device, including words, "PATINSON'S MAGNESIA"; for magnesias (1), (2), and (3), and for magnesia waters, etc. (44). By The Washington Chemical Co., Ltd., Washington Station, co. Durham. 461,743/744/745/746. (Associated.)
- "STOXAL"; for a chemical substance for the destruction of mosquito larvae (2). Les Etablissements Poulenc Frères, 86 Rue Vieille-du-Temple, Paris. 455,611.
- "DERBY" over picture of dog's head ("Derby" disclaimed); for chemicals (2). By Derby & Co., Ltd., 26 Hatton Garden, London, E.C.1. 460,507.
- "PEROLIN" with device of man using spray; for disinfectants (2). By Perolin Fabrikationsgesellschaft mit Beschränkter Haftung, Feldmühlgasse 4, Vienna XIII. 450,988.
- "MORTEGG"; for chemicals (2). By Murphy & Son, Ltd., The Cedars, Sheen Lane, Mortlake, S.W.14. 461,236.
- "KUKRIOL"; for all goods (3). By Kurt Krisp, Gress-Salze, near Magdeburg, Germany. 459,832.
- "NINA"; for a tonic medicine (3). By G. Carosella, 14 Doughty Street, Gray's Inn Road, London, W.C.1. 460,174.
- "AMOR SKIN" ("Skin" disclaimed); for a medicinal skin preparation (3). By C. Schummelfeder, 73 Bahnhofstrasse, Nenenkirchen, Oldenberg, Germany. 461,216.
- "RED BAND MAGNESIA" on oval device of bridge, with facsimile signature and words, "GREAT THINGS IN THE WORLD" ("Red Band" disclaimed); for medicinal magnesias preparations (3). By The Red Band Chemical Co., 15A Richmond Terrace, Dalry Road, Edinburgh. 461,331. (Associated.)

The Taunus-Apotheke in Wiesbaden



DR. JO MAYER, the proprietor of the "Taunus-Apotheke" in Wiesbaden, is not only the owner of one of the most renowned international pharmacies on the Continent, to which is attached a manufacturing laboratory equipped with the latest apparatus, but also an ardent

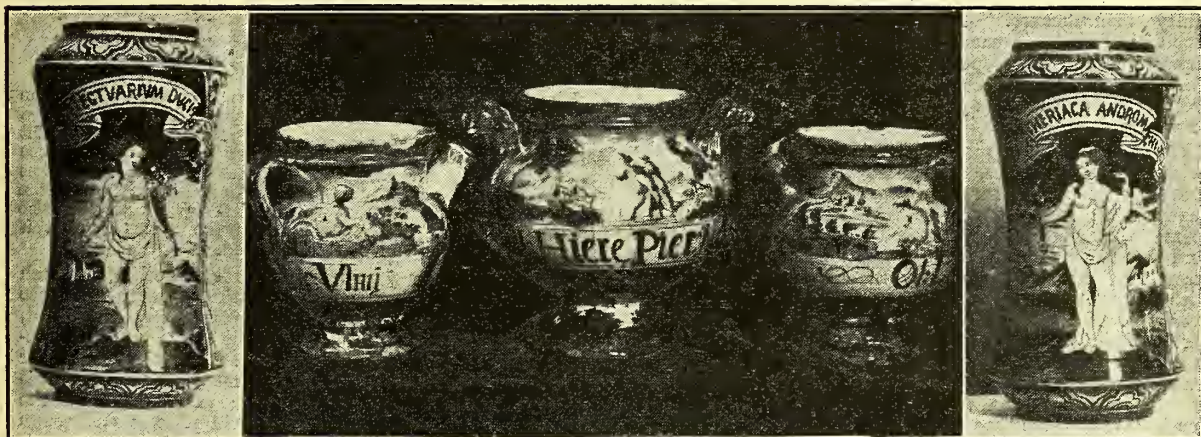
collector. The top photograph shows the interior of the modern pharmacy, while in apt contrast we have below a view of one of the two rooms in which Dr. Mayer has very effectively reconstructed an historical pharmacy, complete in every detail, even to the subtle rendering of the



CASTEL DURANTE

TWO PORCELAIN VASES FROM THE MANUFACTORY OF MARQUIS
GINORI, FOUNDED IN 1735, AT DOCCIA

URBINO



URBINO

THREE VASES FROM THE MANUFACTORY OF SAVONA

URBINO



URBINO ALBARELLO

FULDA WARE

TWO EARLY ITALIAN MAJOLICA JARS

mediæval atmosphere, since every piece, even the wood-work, is a genuine antique. As a private collection it is undoubtedly unique in its completeness, and the pharmaceutical visitor to that delectable Rhenish spa will be well repaid by availing himself of Dr. Mayer's readiness to show his treasures of the past glories of pharmacy, selected

with discrimination since the days of his apprenticeship. Of the collection of over 300 pharmacy vases, of practically every manufacture and epoch, some of the finest examples are illustrated above, and form a fitting continuation of the series reproduced in *THE CHEMIST AND DRUGGIST* ANNUAL SPECIAL ISSUE of June 27, 1925.

Liquid Soap Shampoos

The demand for liquid toilet shampoos has never been greater than it is to-day. For several reasons these have superseded the ordinary shampoo powders, the principal one being the superior detergent properties, owing to the abundance of soft lather produced, and it is possible that the use of liquid shampoos does not entail so much trouble.

Liquid soap shampoos are virtually solutions of soft soap in water with just sufficient spirit to aid thorough saponification. At one time more spirit was used to prevent a slight gelatination, but that is not now necessary. The popular demand in bulk shampoos being for those with a high viscosity, this can be obtained by leaving the shampoo exposed to air for a week, or a fortnight at the most. Emulsified coconut shampoos popularised the liquid variety, but the demand for coconut preparations is probably not so great as it was. The reasons are the difficulty in covering the odour of the oil and the fact that some coconut shampoos leave the hair in a slightly greasy condition. This should not be so, however, even if made by the cold process; the user may not have studied the directions for use, or the latter may not be complete. But it is not always the fault of the user; it may be due to faulty manufacture. It seems an easy matter to saponify oils with a caustic alkali, but those who understand the art of dispensing will appreciate the fact that things are not always what they seem. It is possible to obtain an apparently correct result and yet be wrong.

For example, a supposed test is to put a bit of the finished soap in water, and if no trace of oil is shown, the soap is ready for use. In most cases this may answer, but it must not be forgotten that an oil can be made miscible with water in the form of an emulsion. And that is what happens; the solution contains a certain amount of free oil sufficiently saponified to be miscible with water, but not enough to avoid when used a slight greasy condition of the hair. Almond oil or peach kernel has this peculiarity, besides giving a soft lather; it can be thoroughly saponified and yet leave a minute trace of grease. This is, of course, valuable as a selling point for a shampoo intended for dry hair. Lard is another fat which has this emollient property, due to the high acid values of these fats.

Liquid soap shampoos can be made with a proportion of caustic soda provided a sufficient amount of spirit is used; but the clearest products are those made with caustic potash. It might be stated at this point that a small percentage of caustic soda improves the lathering properties.

The commercial varieties of caustic potash vary from 75 to 89/90 per cent., and can be obtained cheaply. It is impossible to produce a satisfactory shampoo if the strength of the alkali and the saponification values of the oils used are not known. It is difficult always to obtain an oil with a standardised saponification value; one source of supplies may show a difference of 10—in fact, many oils do show such a range. For the purpose of a guide the following table of oils and fats will prove useful:—

	Saponification values	Average wt. of one gallon
Almond	189—195	9 lb. 3 oz.
Coconut	230—263	—
Castor	176—185	9 lb. 9 oz.
Cottonseed	191—194	9 lb. 5 oz.
Groundnut	185—195	9 lb. 3 oz.
Linseed	185—195	9 lb. 5 oz.
Lard	195—196	—
Olive	185—195	9 lb. 2 oz.
Palm	196—205	9 lb. 4 oz.
Palm-nut	242—250	9 lb. 4 oz.
Peach kernel	189—192	9 lb. 3 oz.
Rape	167—178	9 lb. 2 oz.
Soya-bean	192—194	9 lb. 5 oz.

Coconut oil is usually given as 260, but experience shows that it varies. The weights will be useful for those who work by measure for fluids.

Coconut shampoos have, up to a short time ago, held the pride of place for lather-producing properties, but

it is possible to obtain the same profuse lather with other oils. The cold process formula has only one fault (if it can be considered a fault): it leaves behind the odour of the oil, but, if suitably perfumed, it is more pleasant than otherwise. It must be also understood that better prices must be obtained for shampoos from other oil, so that it is well to make a distinction. This shampoo, however, has one great advantage, it can be readily produced without steam-jacketed pans. All that is needed is one stoneware jar and a twenty-gallon barrel. A whisky or sherry barrel is best, because the wood will not affect the colour of the solution; a wine-stained barrel will give a dark colour for several operations until the alkali has removed all trace. In any case, the barrel should be first treated (painted) with a strong solution of caustic, stored for a week, and then swilled out with hot water. A barrel so treated will only impart a pale tint to the shampoo—perfume, of course, plays an important part in the colour. The following formula was first published by THE CHEMIST AND DRUGGIST in 1920. Before this or other formulas can be manufactured, permission must be obtained from the Commissioners of Customs and Excise for the use of industrial spirit:—

Cold Process

Coconut oil (260)	40 lb.
Caustic potash (90 per cent.)	4½ lb.
Caustic soda (93 per cent.)	4 lb.
Industrial spirit (60 O.P.)	2½ gal.
Water to	20 gal.

Dissolve the alkali in two gallons of water. Melt the oil, and while still warm (not hot) pour into the lye in a thin stream, stirring all the time. Then add the spirit and continue stirring until of a clear honey colour; there is no necessity for violent agitation. Saponification takes about twenty minutes, completion is denoted by the solution giving off a vapour with a pungent, fruity odour, and also by the thin film of soap shown on the surface. At this stage the shampoo can be left to stand.

It is not necessary to allow the melted oil and potash to cool before mixing; adding together at a temperature of about 120° F., saponification is not only expedited, but more complete. It is advisable to allow the solution to stand for an hour before adding the remainder of the water. Lack of patience may mean some free fat being thrown out of solution; this is one of the causes of failure when using the cold process. Through containing soda, a certain amount of sodium stearate is thrown out, and after three days settles as a deposit. If the clear soap is syphoned off as it is wanted, little time and labour is wasted in filtering the remainder. A good calico bag and a little talc is all that is necessary.

To avoid the odour of the oil the hot process must be used; this entails the use of steam-jacketed pans, or for small quantities a water bath.

Hot Process

Coconut oil (260)	40 lb.
Caustic potash (90 per cent.)	11½ lb.
Industrial spirit	½ gal.
Water to	20 gal.

Melt the oil at a temperature of 120° F., then add the alkali dissolved in four gallons of water and cooled to the same temperature. Stir for a short time to emulsify, then add the spirit, gradually raise the heat to 180° F., and keep at that temperature until thoroughly saponified.

Soft soaps made by the hot process are best left covered for at least twenty-four hours, and at a temperature not lower than 60° F., before adding the water up to bulk. For the purpose of giving a clearer solution, six ounces of potassium carbonate may be added.

The following formulas all contain a proportion of coconut oil; in some cases it serves to cheapen the formula, but that is not the object of its inclusion. Soaps made with this oil are most suitable for hard waters, which need those that give a profuse lather.

OLIVE OIL SHAMPOO

It is a mistaken idea of the public that these shampoos should be green; therefore in this formula at least 50 per cent. of olive oil should be the proportion if colour is to be a factor. This percentage will give a greenish colour, but not a decided green; sufficient,

however, to claim that the article contains no added colouring matter. As a matter of fact, it is seldom that a soap made only of olive oil will be a decided green. If palm oil is used to cheapen the formula, chlorophyll will have to be included; but as a selling point the most that can be claimed is that it contains no artificial colouring. For the sake of brevity a palm and olive formula is given:—

Olive oil (190)	4 lb.
Palm oil (230)	8 lb.
Coconut oil (260)	8 lb.
Caustic potash (90 per cent.)	5 lb.
Industrial spirit	3 pints
Water to	10 gal.

Dissolve the potash in two gallons of water. Heat the oils at a temperature of 120° F., then pour in the potash lye and stir steadily until emulsified. At this stage add two and a half pints of spirit, stir, and raise the temperature to 130° F., and continue stirring until saponified. Leave covered for twenty-four hours, then dissolve in the remainder of the water.

To improve the lather the following additions will be found useful:—

Glycerin	16 oz.
Borax	1 lb.
Potassium carbonate	8 oz.
Oleic acid	1 oz.

Add the oleic acid in the remaining half pint of spirit.

This shampoo is much superior to ordinary soft soap dissolved in spirit and water.

The following notes will be found useful:—In stirring soft soaps, very little agitation is necessary; otherwise a thick, curdy skin of soap forms on the surface. Stirring prevents the soap from bubbling over, this being caused by action of the alkali with the fatty acids. Coconut oil saponifies much quicker than most other oils, so that a test must be given to determine complete saponification. The simplest one is that if a small piece of the soft soap is placed in water, it should sink, and when dissolving should not make the water too cloudy. Also, if a small portion is held up to the light, it is transparent; the edges may be clear, but if there is any sign of a milky ring, the operation must be carried further. Liquid soap shampoos must not be filtered clear, as some of the soap will be removed.

PINE TAR SHAMPOOS

There are two kinds now necessary, dark and light, and both may be made with all linseed oil or contain a proportion of coconut oil.

Dark

Linseed. oil (raw 190)	4 lb.
Coconut oil (260)	2 lb.
Caustic potash (90 per cent.)	1 lb. 7 oz.
Industrial spirit	12 oz.
Stockholm tar	8 oz.
Rectified oil of tar	2 oz.
Bornyl acetate	$\frac{1}{2}$ oz.
Water to	3 gal.

Heat the oils and tars at a temperature of 120° F.; then add the caustic potash dissolved in $\frac{1}{2}$ pints of water. Stir slowly until emulsified, then add the spirit; stir again and raise the heat to 130° F., and continue at this temperature until thoroughly saponified.

Leave covered for twenty-four hours, then dissolve the soap in the remainder of the water. As in olive oil shampoo, palm oil may be included, and the addition of glycerin, borax, oleic acid, potassium carbonate is an improvement. No other perfume is required, but bornyl acetate helps to impart a fresh odour of pine; also a mixture of the two tars gives a better odour.

For the light-coloured shampoo the only change necessary is to leave out the Stockholm tar and use 8 oz. of the rectified oil. This is the variety of shampoo which created the demand for those with a higher viscosity.

ALMOND OIL SHAMPOO

This is only required as a speciality for dry hair, and is much like the others, except that it contains a small portion of almond or peach kernel oil. Price of this oil does not permit of 50 per cent. being used, but for

the sake of "truth in advertising" 20 per cent. is included:—

Almond or peach kernel oil (190)	2 lb.
Palm oil (200)	4 lb.
Coconut oil (230)	4 lb.
Caustic potash (90 per cent.)	$2\frac{1}{2}$ lb.
Industrial spirit	2 pints
Water to	5 gal.

Melt the coconut and palm oils, remove from source of heat, and then add the peach kernel oil. If the last-mentioned oil is known to be fresh, it may be added with the others. Meanwhile dissolve the caustic potash in one gallon of water, allow to nearly cool, pour into the melted oils, and stir slowly. Then add the spirit, stir again to emulsify, then commence heating again.

Glycerin, borax, etc., helps to improve this shampoo also.

If there is any doubt about the freshness of the oils, the method of saponification differs, because it has been found that if made too hot before adding the lye, the odour of stale olein is apt to be persistent. For a high-class preparation this must be avoided. To avoid any confusion it might be stated here that palm oil differs from palm nut oil in saponification value and in price, palm oil being the cheaper. The fruit of the palm is similar to a plum; it has a soft pulp covering a kernel. Palm oil is that expressed from the pulp; palm nut oil, as the name implies, is expressed from the kernel. Deodorised coconut oil will give an odour by the cold process, so one might as well use the cheapest oil, i.e., Ceylon.

Sufficient has been written to show that there is little difference between one shampoo and another. The large proportion of water does not make a great difference in cost per gallon. In soft soaps the cost of the oils does make a big difference, and for those who wish to make small quantities for themselves the following may prove useful:—

Fish oil soaps are always distinguishable by their objectionable odours. Cottonseed oil soaps are liable to acquire a rancid odour after keeping, and are therefore not to be recommended for the toilet trade; as a rule, this oil takes more saponifying than others—when included in a linseed oil formula this point must be remembered.

Palm oil soaps, even if green when first made, always turn an amber colour.

Rape oil always imparts its peculiar odour to the soap; linseed oil also, but in this case the soap has a "clean" odour, ideal for tar, but difficult to cover in olive and peach kernel, shampoos.

Castor oil in a shampoo has the "sensation" of free fat when used; soya bean oil soaps give a good lather.

With the exception of coconut oil, experiments show that a formula of mixed oils gives the best lather.

C. DOUBLEDAY.

Business Changes

MR. F. H. SLINN, chemist and druggist, has opened a pharmacy at 51 Butterson Street, Rhyl.

MR. J. GARBUTT, chemist and druggist, has acquired the business of Sarsfield & Co., Ltd., 7 Market Place, Durham.

MR. A. E. BARRON has taken over the business of Mr. J. E. Taylor, chemist and druggist, Sutton Oak, St. Helens.

ASCOTT'S PHARMACIES, LTD., London, N.1, have purchased the branch of Mr. Wells at 201 Southwark Bridge Road, S.E.1.

MR. G. WHITEHEAD, chemist and druggist, Whitley Road, Whitley Bay, has opened a photographic dépôt on the Promenade.

SCHERING, LTD., 3 Lloyd's Avenue, London, E.C.3, is taking over the propaganda and sale of Schering's specialities, hitherto in the hands of A. & M. Zimmermann, Ltd. The transfer does not include Schering's fine chemicals, which will still be dealt in by Messrs. Zimmermann.

Pharmaceutical Assistants on the Riviera

At this time of the year a number of assistants will be attracted by the idea of working in season pharmacies in the South of France. The idea is a good one, and the experience gained is sometimes likely to prove useful; then there is the fine weather in contrast to what we receive in England during the winter. There are some disadvantages, however, for the season only lasts five months, so that the assistant often has to find other employment when he gets back to England, in May. Any assistant who contemplates going out to these Continental pharmacies will be anxious to know what the cost of living is out there; he will also know that he cannot expect to live in France as cheaply as a Frenchman, and the same applies to Italy. At the time of writing the exchange is round about 102 francs to the £, and the season has not yet commenced; it must not be thought that this makes no difference to the cost of living in France, but it is difficult to say exactly what difference it makes. The details which follow refer to last season, when the exchange was a few points below 100. The assistant will usually pay his fare from London to Cannes, Monte Carlo, Nice, Mentone, or other town along the coast. When the season is finished the pharmacy will usually pay the fare back to London, or they may allow 350 francs towards it. Thirty kilos of luggage is allowed under one ticket, and excess may be charged at the rate of 35 francs for every 10 kilos. For the fare out and home at least 1,000 francs must be set aside, and if 350 francs is allowed towards the return there is 650 francs that the assistant must find. The season lasts five months, so it amounts to an extra expense, on the month's salary, of 130 francs. It may be argued that, seeing the position is only a season one, and lasts only five months, the pharmacy out there should pay the fare both out and home. This is a matter of arrangement between the assistant and the pharmacy, and it is sometimes arranged in this manner where the assistant comes out regularly, each season, from London.

COST OF LIVING

It is difficult to get rooms at a reasonable price in any of these season places, because visitors compete with one in searching for this accommodation. Even if you are on the spot early it makes very little difference, for those who let rooms prefer to wait for those who come later with their "good" English or American money. Assistants who regularly "do" the season on the Riviera seldom need to pay more than 200 francs a month, but it is not to be expected that a new assistant will be so fortunate; he will be expected to pay a little more, but this need not worry him, for he will be able to get a very comfortable room for 300 francs a month on any part of the Riviera, and with the help of those at the pharmacy he will probably be able to get the price reduced to 250 francs per month. With regard to meals, there is always keen competition in France, and a good meal can be had on any part of the Riviera for 10 francs; this is the price a Frenchman would pay, and it would include a small bottle of wine, and would finish with coffee. There are cheaper restaurant prices, such as 9 francs and 8.50 or even 7.50 per meal, but probably it will not interest the English assistant to go lower than 9 francs. Pension—two meals a day—can in the majority of cases be arranged for 400 francs per month, but one must always be prepared to give 475 or 500 francs if called upon to do so. Sometimes the assistant will find it cheaper to pay for his meals as he gets them, and this gives him a good selection, and if dinner costs him 15 francs one night he can get a cheaper one the next night for 7.50, and so can average his expenses. At the end of the month, if he is careful, his expenses for meals should not be above 450 francs. Then there's breakfast, but he will follow the French people and have a coffee and a couple of rolls, and for this he

will pay 1.50 or perhaps a little less. Taking this expense for the month, it should not exceed 50 francs.

Then there are such things as "tips" to be provided for, and these will sometimes be covered by the sum of 50 francs each month. Expenses for laundry will sometimes amount to 50 francs per month, but they will seldom exceed this figure; it can be taken on the average at 40 francs per month. With a room at 250 francs, and two meals a day for the month at 475 francs, laundry at 50 francs, tips at 50 francs, and 50 francs for "breakfasts" for the month, the total of 875 francs per month is reached for necessities.

When the assistant wishes to buy any English goods he becomes aware of what 100 francs to the £ really means. English magazines at 1s. will be bought for roughly 6 francs, and 6d. lines will be 3.50. Twopenny newspapers will cost 1.10 or 1.25 franc each. The postage on a letter to England may be averaged out at a franc a time. English cigarettes and tobacco will not be found cheap in France; this can be all understood. From this information the assistant will be able to forecast his expenses for luxuries over the month.

HOURS OF DUTY

Hours of duty are from 8 a.m. to 8 p.m., or from 9 a.m. to 8 p.m. Two hours are sometimes allowed for lunch, but one hour is more likely to be the rule; there is no tea interval. Sunday duty is from 9 a.m. to noon every morning, with perhaps a full Sunday duty in six or eight Sundays. There is no provision made for the half-holiday in France, and only pharmacies which employ two or more assistants (English) can be expected to provide for this. The larger the pharmacy the more specialised the work, and the easier it becomes. Where a number of assistants are kept there is usually a better organisation, greatly to the advantage of the assistants. Small pharmacies cannot be expected to give the same advantages to their assistants as a large concern can.

What is the best salary to ask on the Riviera? Usually it is best to ask for the highest salary obtainable, considering that any francs that are saved during the five months might have to be exchanged in London at the rate of over 100 to the £. One must, however, be reasonable, for the pharmacist is not responsible for the rate of exchange. Some firms pay their English assistants in pounds sterling, and where this can be arranged it is much better, for the assistant has no further worry. Where this arrangement cannot be effected quite reasonable salaries to ask would be: 1,000 francs per month when the exchange is between 50 and 70; 1,250 francs per month when the exchange is between 70 and 90; and 1,500 francs per month between 90 and 100. As can be judged by the expenses already mentioned, these salaries are reasonable, and are accepted by pharmacists on the Riviera who do English and American business. At the present rate of exchange—this being 102.50—1,600 francs is a fair thing to ask so long as the exchange is between 100 and 105. (2/10).

FOOT AND MOUTH DISEASE.—During a comparatively recent invasion of foot and mouth disease among cattle in Texas and California the members of the veterinary profession did some hard work in preventing this destructive disease spreading into the open ranges of the west, as much of the territory invaded by the disease was mountainous and the terrain broken by many canyons. The "Kentucky Medical Journal" states that to dig trenches in the rocky soil of sufficient size to contain the thousands of animals it was found necessary to destroy was impossible, so the cattle were driven into blind canyons, shot down, and the sides of the canyons were dynamited, thus covering the carcasses to a sufficient depth to prevent resurrection by wild animals. The journal further states that when the recent outbreak of European fowl pest occurred in Indiana, endangering the poultry business valued at sixty million dollars, the legislature immediately appropriated fifty thousand dollars which was used by a corps of trained veterinarians who were thrown into the field and succeeded in eradicating the disease in two weeks.

Modern Physico-Chemistry in its Pharmaceutical Applications

By W. A. Whatmough

XXI. A Mechanical Explanation of the Origin of Spectral Lines

THE subject-matter of the four preceding articles is typical of the ever-changing and elusive state of quantum energetics. Electronic orbits, as they fit more and more with relativistic mathematics, depart further and further from that simplicity required by purely mechanical or chemical considerations regarding the stability of atomic structures. Continued usage of quantum nomenclature is leading some scientists to regard "quanta" as synonymous with "free" energy traversing space in various-sized bundles (quanta) to fit especial (quantum) require-

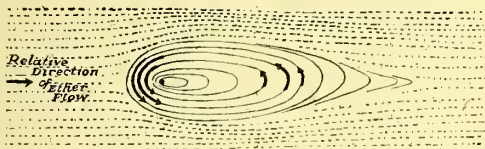


FIG. 21.—Diagrammatic representation of the temporary deformation of atomic mass from normal bi-conical shape (with circular section, fig. 11, Article XII) to stream-line (ovoid) form by an increase in stream-line flow of the ether of space.

ments. In other words, the chaos and confusion surrounding the quantum theory is being increased by quantisation of space itself. Now Bohr's quantisation of electron orbits is admittedly an arbitrary set of assumptions (see Article XIX), and the quantising of space is not an explanation of the absorption and emission of energy during atomic activation, but just another additional assumption. To add to the conflict of conceptions, even the basic idea of definite energy "levels" of the original Bohr atom (Fig. 18, Article XIX) has disappeared with the (open) elliptical precessing orbits of the Bohr-Sommerfeld atom (Fig. 20, Article XX).

As indicated in Article XVII, in order to solve the mystery of atomic radiation, it is necessary (1) to give attention equally to the atom and to the surrounding space, and (2) to substitute a non-radiating ring electron (= a cyclic tube of force) for an electrical electron, consisting of a point charge of "electricity."

The cyclic ring type of electron agrees with the demand of physicists that the electron is an "orbit" (and not in itself stationary or static). Article XII described the properties and depicted (Fig. 11) the nebula-like form of a whirlpool or "mass" of ether rotating in equilibrium with the surrounding flow of space (see also Article XIII). This corresponds to a hydrogenic atom with one ring-like external electron, and Articles XVII to XX dealt with the characteristic frequencies of radiation emitted by activated hydrogenic atoms. The form and continued existence of such an atomic "mass" connotes (as in a whirlpool of water) both flow and the equilibration of input and output of energy (as flow of fluid) at different parts of the whirling mass.

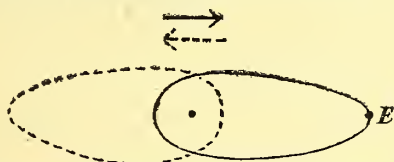


FIG. 22.—Diagram of change in electron orbit (= fastest line of rotation in atom) by reversal of direction of streaming ether.

Consider next that the flow of ether increases; then the result of this acceleration, in flow is to transform the "plastic" atom into an ovoid or stream-lined form, as in Fig. 21. It will be observed that the front of the "atom" is compressed and the back elongated. Now the effect of restricting the passage way of a flowing fluid is to increase the velocity of flow at the restriction (Article IX). The varying rate of flow in different parts of the rotating orbital flows (which conjointly con-

stitute by their motion the outermost ring electron) is indicated graphically by length of curved arrows in streamline flows, shown for convenience as continuous lines (actually the flows are invisible and infinite in number, and consist of varying velocities of moving fluid). Fig. 22 illustrates the changes which occur in atomic form when the ether flow (or wind) is first in one direction and then in an opposite direction (the electron is represented by its fastest flow, which approximates to a linear orbit at enormous velocities, see Article X).

Reversal of ether flow corresponds to an alternating current of electricity, for an electrical current is the result of relative motion of an electron to the surrounding ether. The result is the same whether we suppose the electron moves and ether remains at rest, or vice versa, or whether both move. All that is required is a change in relative motion between rotating electrical matter and flowing space. [Note: A direct current of electricity would appear to be a pulsating flow.] The production of spectral lines from gaseous (free) atoms in a vacuum tube, in the electric arc or by electric sparks (Fig. 13, Article XVII), is dependent upon repeated reversals of ether flow, these setting up the electromagnetic pulsations now so well known as wireless waves, heat, light, ultra-violet rays, and x -rays. With each change of flow of medium, an elongated atomic mass such as Fig. 21, in trying to reverse its shape to that in Fig. 22, will also tend to turn around the central non-rotating axis (of inertia). With repeated reversals at definite intervals, the oscillations of medium and atom will synchronise and the whole mass will rotate around this axis. An analogy in everyday life is the conjuror's way of making a plate spin on the end of his magic wand by taking it backwards and forwards with increasing rotatory

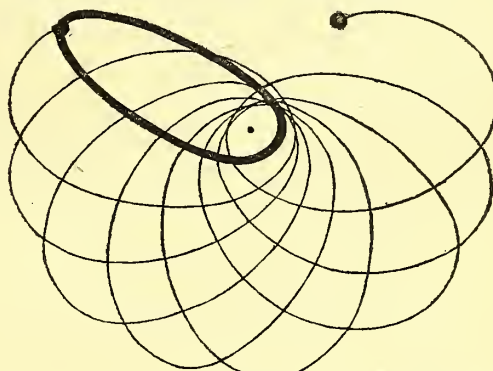


FIG. 23.—Form of path (= rosette or open elliptical orbit) described by the portion of orbital flow indicated by the black dot under the combined traversal of orbital and precessional flows. The rotatory flows constituting the atom (and electron) retain their integrity though their velocities vary in different parts of the same orbit, being fast at the perihelion and slow at the aphelion (cf. Article XX).

action. When the plate gains sufficient momentum it will spin by itself with diminishing oscillations as it loses energy (by friction with air and with the wand). The production of spectral lines requires activation of an atom by means of pulsating ether, and the behaviour of the activated atom in absorbing or emitting energy with increasing or diminishing vibration of ether is strictly comparable to that of the spinning plate under the changing motion of the wand.

By simplifying the electron ring to a plane orbit as in Fig. 23, it is possible to indicate the path of successive portions of the rotating ether of the electron while the atom is spinning and oscillating in unison (or in phase) with the vibrating medium causing its motion. Such a path (Fig. 23) is the result of compounding rotation in the orbit and of precession of the orbit itself and corresponds to the open elliptical orbit (or rosette) of the Bohr-Sommerfeld atom (Fig. 20, Article XX). In the above conception of a hydrogenic atom the electronic portion of the atom consists of ether in rotation relative to streaming ether; and for convenience this can be

depicted in orbital form as consisting of cyclic flows forming a ring electron. [The axis of inertia represents a core or positive nucleus.] The velocities of rotation vary widely in different parts of the rotating electron, and the equilibrium conditions therein are beyond computation. Nevertheless each point in the line of quickest rotatory flow passes through and partakes in all the phases required by a Bohr-Sommerfeld orbit, viz. :—

(1) The orbit is *circular* when the atom rotates in equilibrium with the surrounding ether.

(2) Any *change* in ether flow results in a temporary deformation of the orbit to a stream-line or pseudo-elliptical form (=increase in size, i.e., displacement).

(3) Absorption of energy is required to maintain the increased displacement, and the atom apparently swells in attaining its new state of equilibrium (each pulsation frequency in the flow of streaming ether corresponds to a definite "temperature").

(4) A pulsating or alternating flow of ether is required to set up the oscillatory vibration characteristic of activated atomic states, and these correspond to changing energy conditions.

(5) The electronic substance (rotatory ether) varies in velocity at different portions of its accelerated (elliptical) orbit (Fig. 21), which corresponds to the relativistic principle of variation of mass with velocity.

(6) An ethereal pulse results each time the rotatory flow *changes* its direction. Such pulsations may be in a single plane (polarised), or in other directions according to orbital precession in space (quantum notation refers to four axes of precession, cf. Article XX).

(7) Likewise pulsation follows any change in rate of ether flow, whether this is that of rotation (*see* (6) above) or in stream-line flow of the medium itself (acceleration or deceleration causing a change in flow of both the medium and the rotating mass).

(8) Absorption or emission of ether pulses (=radiation) is a conjoint phenomenon, being the interaction of a cam-like electron (or atom) rotating in a fluid medium. This is directly comparable with the mechanical production of pulsation by the rotating cam of Fig. 7 (Article VII).

The above explanation based upon fluid flow depicts mass and energy as *different states of the same universal medium* (ether of space). Change in flow of ether (temperature) is the cause of pulsations, the frequency of which is a measure of rate of revolution of atom and of its interaction with space. Instead of quantum jumps there is a series of pulsations of diminishing intensity (but with the same characteristic frequency) as the atom regains equilibrium.

Personalities

MR. W. SUTCLIFFE, secretary of the Bradford Branch of the Pharmaceutical Society, is relinquishing office for reasons of health.

DR. J. G. JACKSON, son of Mr. J. Gilbert Jackson, chemist and druggist, Sheffield, has been made a life member of the Sheffield Wireless Society.

MR. GEORGE HEUGHAN, chemist and druggist, Dewsbury, acted as chairman of the processions committee during the carnival week in the town ending on October 10.

MR. A. PATERSON (E. W. Wells & Co., chemists, Grahamstown, Cape Province) and MRS. PATERSON celebrated their silver wedding on September 12. Mr. Paterson established himself in Grahamstown thirty years ago.

MR. HENRY M. LLOYD, J.P., chemist and optician, Merthyr Tydfil, addressed the Dowlais Chamber of Trade, on October 6, on "The Development of the Public Health Service from 1848 up to the Present Time."

MR. N. BROWN, manager for the past ten years of Lewis & Burrows' establishment at 98 Westbourne Grove, London, W.2, has been appointed buyer in the drug and perfumery department of John Barker & Co., Ltd., Kensington, W.

MR. ARTHUR WHEELER (Huisking & Wheeler, Ltd.), 26 and 27 Great Tower Street, London, E.C.3, leaves for New York per the s.s. "Adriatic" on October 24. His address will be c/o the associate house Chas. L. Huisking Inc., 5 Platt Street, New York City.

MR. J. OWEN HAYLOCK, Ph.C., has been appointed sales manager of Tetmal, Ltd., 45 Farringdon Street, London, E.C.4. On resigning from Boots Pure Drug Co., Ltd., Mr. Haylock was presented with an electro kettle on stand by his colleagues of the buying offices.

MR. A. W. EDWARDS, F.C.S., who is managing director of Schering, Ltd. (see p. 541), is a qualified chemist. He was from 1909 to 1914 on the propaganda staff of the Bayer Co., Ltd., and resigned on enlisting in the Army in September 1914. He was gazetted out of the Royal Engineers (Gas Offensive) on April 1, 1919, and after a fortnight commenced duty in the chemical department of R. W. Greeff & Co., Ltd., which position he resigned to become managing director of Schering, Ltd. Mr. Edwards is very popular in chemical trade circles in London and the country.

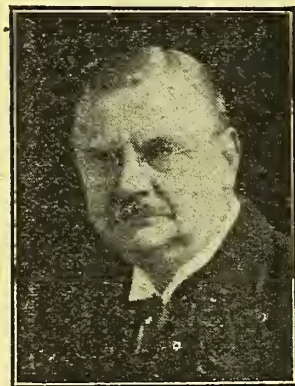
MR. FREDERICK FOSTER, who has just entered upon a term of office as President of the Bradford Branch of the Pharmaceutical Society, is chief pharmacist at the Bradford Royal Infirmary. Mr. Foster is a native of Birmingham, where he served his apprenticeship to the late Mr. Charles Thompson, Ph.C. He passed the Qualifying examination in 1899, and soon afterwards became an assistant dispenser at the Birmingham General Hospital. In 1912 Mr. Foster came to Bradford and succeeded Mr. George Penty (now in business in Bradford) at the Bradford Royal Infirmary.

MR. PERCY ROBINSON, chemist and druggist, Orford Hill, Norwich, has accepted an invitation to become Sheriff of the city for the ensuing municipal year. Mr. Robinson qualified thirty years ago, and his business (formerly carried on by his late father) has been extended until it embraces three concerns in London, two in Norwich and one in South Norfolk. He was a member of the Norwich Board of Guardians for fifteen years, and was chairman of three of its committees. Five years ago he entered the Town Council; he is now vice-chairman of the education committee and chairman of the elementary education subcommittee. Mr. Robinson is this year's President of the East Anglian Federation of Pharmacists, and is also prominent in Masonic circles.

MR. ANTHONY J. PRESTON, the first President of the Chemist Analysts' Institute, was born at Poole. He was one of the first students of the Ramsgate Technical Institute, where he became afterwards demonstrator of chemistry and botany. He passed with distinction several science and art examinations, and negotiated the Qualifying pharmaceutical examination under the guidance of Mr. H. Lucas, of the South of England College of Pharmacy. Afterwards he joined the staff of Wright, Layman & Umney, Ltd., and assisted the late Mr. J. C. Umney in much of the analytical work connected with the British Pharmacopoeia, 1898. In collaboration

with Mr. J. C. Umney and Mr. Ralph Swinton, he carried out some of the earlier work on thyroid gland. He is a keen promoter of higher education for ophthalmic opticians, one of the founders of the Hospital for Refraction, Newington Causeway, and a lecturer in physiology and physiological chemistry.

TRUTH IN ADVERTISING.—According to a survey made recently in different parts of America, purchases made by trained shoppers found that the advertisements of goods for sale were incorrect in sixty-eight cases and correct in only twenty-eight cases in describing various items of merchandise. The "Retail Ledger" asks: "Is there any reason to wonder why the public does not place full and implicit faith in what even the most reputable of stores have to say about their goods?"



Photo] [Elliott & Fry
MR. A. J. PRESTON

Marriage

DAVIES—JONES.—At the Welsh Church, King's Cross, London, N., recently, David Edmund Davies, chemist and druggist, Llanfyllin, to Margaret M. Jones.

Deaths

BREMNER.—At an Aberdeen nursing home, on October 8, Jessie Ann Weir, beloved wife of Mr. William Bremner, chemist and druggist, Cruden Bay, Port Erroll.

CRAIG.—At his residence, Rubislaw Den North, Aberdeen, on October 11, Mr. Andrew Craig, retired chemist and druggist.



MR. ANDREW CRAIG

Mr. Craig, who was a son of the late Mr. Andrew Craig, an Aberdeen grocer, was trained in the city, and in 1884 was elected President of the Chemists', Assistants', and Apprentices' Association. He resigned that office in order to come to London and study for the Qualifying examination, which he passed in July 1885. After gaining experience as an assistant in Reigate, Manchester and Peterhead, Mr. Craig commenced business on his own account in Gallowgate, Aberdeen. He was treasurer of the Local Executive Committee when the British Pharmaceutical Conference met in the city in 1908. Since he retired from business, Mr. Craig had given much of his time to public work; he was chairman of a parish council, and also served the community in other ways.

GIBSON.—At 1 Bellerby Terrace, West Hartlepool, on October 11, Mr. George Shaw Gibson, chemist and druggist, aged fifty-three. Mr. Gibson was a member of the West Hartlepool Harriers' Club, and in his early years achieved many successes as a long-distance runner. He leaves a widow and a son.

HILTON.—At 58 West Parade, Huddersfield, on October 2, Mr. Ivor Ajax Robinson Hilton, Ph.C., aged sixty-two. Mr. Hilton entered pharmacy as an apprentice to Mr. T. L. Reeve, chemist and druggist, 19 New Street, Birmingham, and after passing the Major examination was in business in London for some time. For five years he was a representative of S. Maw, Son & Sons, Ltd., and during eighteen years he was with the Charles H. Phillips Chemical Co., London and New York, in a similar capacity. Mr. Hilton had of late been in failing health.

LEFROY.—At St. George's Hospital, London, S.W.1, on October 14, Mr. Harold Maxwell Lefroy, Professor of Entomology at the Imperial College of Science and Technology, South Kensington, aged forty-eight. The premature death of Professor Lefroy is due to his untiring zeal in research; on October 10 he was overcome by the fumes of a gas with which he was experimenting at the College, and never recovered consciousness. After graduating at Cambridge with first-class honours in the natural science tripos, Professor Lefroy received a Government appointment, and much of his most brilliant work was done in an advisory capacity after previous investigators had failed to solve commercial problems arising from the ravages of insect pests. During the European war his expert knowledge proved of the greatest value in mitigating the discomfort of the troops in hot weather—he himself served in Mesopotamia; and in 1917 he came into public notice through devising a spray for the timber roof of Westminster Hall, then suffering from the depredations of a beetle. The formula of this spray was published in *THE CHEMIST AND DRUGGIST* (1918, p. 698), as were various others of his inven-

tion from time to time. It is understood that he has left ready for early publication an article on "Nicotine as an Insecticide."

MULLINER.—At Alexandra Villa, Botley, Hants, on September 28, Mr. Thomas Charles Mills Mulliner, dentist. Mr. Mulliner served his apprenticeship in pharmacy to Mr. Rastrick, chemist and druggist, Portsmouth, and in 1902 became the proprietor of the Botley Drug Co., which was purchased six years ago by Mr. G. G. Rule, chemist and druggist. On relinquishing business Mr. Mulliner continued his dental practice.

TWIDALE.—At Newgate Lane, Mansfield, on October 6, of pneumonia, following influenza, Mr. Herbert Twidale, chemist and druggist, aged forty-six. After he had qualified (in 1902), Mr. Twidale's first situation was with Sir Francis Laking, the King's apothecary; he was afterwards for some years in Nottingham, and opened a pharmacy in Mansfield fourteen years ago. Mr. Twidale was an ex-President of the Mansfield Pharmacists' Association, and a member of the Nottinghamshire Pharmaceutical Committee. He leaves a widow and four children. The funeral, which took place on October 8, was attended by a number of fellow-pharmacists from Mansfield and the district.

B.P. Notes

By "Abel Scholar."

On Melting Points

In the 1885 and 1898 editions the melting point of prepared lard was given at 100° F. (37.8° C.), but in the 1914 edition this figure is unfortunately omitted. In preparing ung. resinae, for example, it is desirable that melting points should be known, seeing that the order of mixing is dependent upon the melting points of the various ingredients if a satisfactory product is to be obtained. The laconic "mix" should give place to a more intelligent system of directions. Under *adepts preparatus* the 1914 B.P. says: "Forms on melting a clear liquid which does not deposit water on standing." It is here that the suggestion may be made that the thermometer be introduced and the temperature observed at the moment of clarification; finally, if the melted lard forms a clear solution, why is it necessary to filter it before the test for sesame oil is made?

Freezing Mixtures

In the B.P. monograph on *oleum cajuputi* the words "in a vessel surrounded by a freezing mixture" occur. According to certain authorities a freezing mixture is composed of two parts of well powdered ice (or better snow) with one part of common salt. The following mixtures have also been given:—

Substances	Parts by weight	Reduction of temperature
1. Sodium sulphate	8	+10° to -17° C.
Hydrochloric acid	5	
2. Powdered ice or snow	2	+10° to -18° C.
Common salt	1	
3. Sodium sulphate	3	+10° to -19° C.
Dilute nitric acid	2	
4. Sodium sulphate	6	+10° to -26° C.
Ammonium nitrate	5	
Dilute nitric acid	4	+10° to -29° C.
5. Sodium phosphate	9	
Dilute nitric acid	4	

Of these five formulas the first three do not differ greatly in their range of the fall of temperature, but there is no doubt that the second (ice and salt) would take preference. The other recipes are rather indefinite: for example in (1) the strength of the acid which should be that of the B.P. 1.16 gravity and the sodium sulphate would be the ordinary crystalline salt known as Glauber's salt. The nitric acid in the other cases should be the 1:1 strength. The disodium monohydrogenphosphate is the usual sodium phosphate employed. Pharmacists should use No. 2, and this might be officially stated.

MYSTERY.—At the close of an inquest held on October 13 on the body of a resident of Hershham, the coroner recorded what he termed the curious verdict of "Death from heart disease, accelerated by taking some substance from a bottle."

Trade Notes

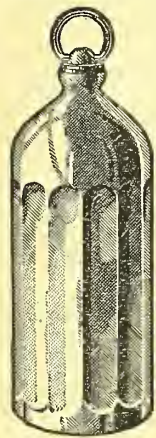
O-CEDAR POLISH.—O-Cedar, Ltd., Slough, invite chemists to write for particulars of trade terms and to apply for supplies of showcards, window bills, and display stands.

CAPROKOL is the brand name used by The British Drug Houses, Ltd., for hexyl-resorcinol manufactured under sole British licence from the patentees. Particulars are given of packages and prices, while full descriptive literature will be sent on request.

NATIONAL CASH REGISTERS.—New models at low prices of cash registers are the feature of the announcement of the National Cash Register Co., Ltd., 225 Tottenham Court Road, London, W.1. Further particulars of these may be obtained by using the coupon attached to the advertisement.

MEDICAL EXHIBITION.—C. H. Zeal, Ltd., 77 St. John Street, London, E.C.1, were interesting medical men in their special thermometers—the Repello, Aseptic, Sentinel and Acello, each of which has special features. The syphon urinometer was also being shown.—Anglo-American Oil Co., Ltd., Albert Street, Camden Town, London, N.W.1, had a good display of Nujol, Mistol, Flit, and Semprolia preparations.

DIAMOND HOT-WATER BOTTLE.—The London Aluminium Co., Ltd., Witton, Birmingham, advertise in this issue aluminium hot-water bottles and other aluminium articles, such as soap cases and bed pans. The hot-water bottles, cylindrical in shape, are very popular, and each is sent out in a cardboard case, with a guarantee of replacement within six months for defects of workmanship or material. The minimum quantity sold is one dozen, a quantity which most chemists will have no difficulty in disposing of at the present time.



RODINE BONUS OFFER.—In connection with the semi-jubilee of the introduction of Rodine rat and mouse remover, Mr. Thomas Harley, manufacturing chemist, Perth, is making a special bonus offer. The offer takes the form of a special discount on direct orders of the value of 30s., and as the period includes all orders posted up to October 17, chemists who desire to take advantage of it should communicate at once with Mr. Harley.

NINE FACTORS that have to be taken into account in compounding a perfect dentifrice are enumerated in the advertisement of Pepsodent. The Pepsodent Co., 42 Southwark Bridge Road, London, S.E.1, append a coupon which, when sent to the company, with business card, is good for a 2s. tube of Pepsodent. The idea of the offer is to give chemists an opportunity of trying the dentifrice so as to be able to speak of its features from experience.

VINOLIA SHAVING SOAP COUPONS.—Vinolia Co., Ltd., Lever House, Blackfriars, London, E.C.4, ask us to state that all the Vinolia shaving stick free gift coupons, some of which, however, bear the expiry date of October 31, will be honoured if received before December 31. Each coupon entitles the person whose name and address appears thereon to one of the Vinolia gift boxes free, provided the British Royal Arms flaps from two separate 1s. 3d. Vinolia shaving stick cartons are attached.

"D.P. BOBBER."—Douglas Kirby & Co., Ltd., St. John's Lane, Gloucester, send us a sample of the "D.P. Bobber," an instrument for use by ladies whose hair is bobbed and shingled in accordance with the prevailing fashion of hairdressing. The "Bobber" resembles a safety razor in form, but the comb part is specially adapted for the special purpose of the instrument. Gillette blades are used with it. We have had practical tests made, and find that as a means of keeping a bobbed or shingled head neat and obtaining just that degree of shortness which individual taste prefers, it is easy to manipulate and does its work efficiently. The "Bobber" retail's at 3s. 6d., and is being extensively advertised in ladies' papers.

Agency with Enterprise

ACTON is a roomy and as yet but partially filled suburb of London, having within its boundaries six railway stations and other means of travel; and anyone whose affairs have taken him in that direction during recent months must have noticed the capacious factories that are springing up in more than one quarter of the borough. One of the most capacious of them houses Parfumeries de Paris, Ltd., who, as a recent announcement in our "Trade Notes" witnessed, are the sole agents for Great Britain and Ireland for Parfumerie Houbigant and for Parfums Cheramy, two of the best-known Paris manufacturing houses. Chemists who associate the word "agency" with a fifth-floor office in an obscure City lane and a "warehouse" under a railway arch would be agreeably surprised if they were to walk along Larden Road, Acton Vale, and visit, as a C. & D. representative did the other day, the extensive offices and warehouses of Parfumeries de Paris, Ltd., lighted, heated, and provided with lifts and other facilities on the most modern plan. It will readily be realised that stock-keeping in perfumery, and particularly in toilet preparations, is a formidable undertaking in the present day. Not so long ago a correspondence arose in our columns calling attention to the retail chemist's difficulty in storing face powders in all their varieties of perfume (say, ten) and tint (say, seven). But, when all is said, the retailer can select; the manufacturer or agent must stock the whole range. Ample provision has, to all appearances, been made in the very up-to-date warehouses in Larden Road for handling a large volume of business; and by good fortune Mr. Paul E. Jenny, managing director, who divides his time between Paris and London, was in the offices when a member of our staff called and was able to give significant details of the way in which the products imported by the company are growing in favour in this country. (Incidentally, it is hardly necessary to remark that a prosperous branch exists in the United States.) Travellers are covering the ground in sections, but there will have to be more of them; a showroom is to be opened in the heart of the West End; and there are other activities in contemplation. One instance of the care with which the plan of campaign has been drawn up was noticeable: the London staff are being trained by experts from the Paris house. From the number of packing-cases seen ready for dispatch and labelled with well-known names, it was clear that these high-class products have commended themselves in quarters in which the art of salesmanship is understood.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

C/1310. Cresolite (material used in enamelware manufacture)	T/410. Dr. Winterschmidt's Vino Tonic
T/1410. De Lancy's pearl tooth blocks.	B/710. Mannette soothers
L/1210. Dr. Genter's Antiphthisis Injection	B/1012. Mascari (for colouring the eyebrows)

INFORMATION SUPPLIED

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.4.

L/310. Bleachodent tooth-paste	J/1210. Mono containers
K/610. Boncilla cream	J/1010. Norit decolourising charcoal
W/1210. Chinosol	H/1210. Nyal specialities
H/1010. Citric acid (for export)	B/710. Odol
O/1210. Houbigant's perfumes in London	W/1310. Railway labels for marking poisonous packages
N/1210. Kotex bandages	E/810. Rally aluminium jug
L/710. Lenigallol	M/710. Wiggs shaving cream

NATIVE JAMAICA SARSAPARILLA.—During 1924 the exports from Jamaica amounted to 95,798 lb. (£3,703) against 89,580 lb. (£3,422) in 1923.

Observations and Reflections

By Xrayser III.

That Address

by Professor Winifred Cullis was full of interest, and calculated to benefit pharmaceutical students of the most intelligent type at a moment when their minds were likely to be more impressible than usual. At the beginning of his college course the earnest student is disposed to take his work more seriously than at a later date, and this is probably what lends special importance to inaugural sessional addresses. Too many such addresses, however, represent simply wasted opportunities, and the first woman to deliver a sessional address at the Pharmaceutical Society's headquarters is to be congratulated on hitting the mark. Those who heard the address are also to be congratulated, and particularly the students, who were given something worth while to think about when beginning their great adventure in scientific and technical education. They will come soon enough to the prosaic but practical consideration of the problem how to make a living by the sale of things about which Professor Cullis and her predecessors on similar occasions have had nothing to say.

The Famous Mithridate,

to which Professor Cullis alluded in her address, was regarded until quite recent times as the great antidote against all poisons. Wootton has given an excellent account of its history and of its rejection from the London Pharmacopœia after 1746 at the instance of that celebrated alumnus of Cambridge, Dr. William Heberden. In spite of the convincing character of Heberden's "Essay on Mithridatium and Theriaca," there were thirteen Fellows of the College, out of twenty-seven, who voted for the retention of the preparation in the Pharmacopœia. Professor Cullis links past centuries with this one by connecting this old-fashioned preparation with our organic extracts. When a comparison is made between our methods of pharmacological research and the use of the living tissues for establishing reactions, and the methods in use in the Middle Ages, we do not seem to have travelled very far. We are told concerning this very mithridate that Serapion (the younger) directed that, to ascertain its efficiency, some poisonous substance such as opium should be given to a cock or a dog, and then an appropriate dose of the antidote; its powers were to be judged by the result. Or a wild cock was to be allowed to be stung by a venomous reptile and then to be given a proper dose of the mithridate. If the fowl escaped, the medicine was good; if not, it was not to be depended upon.

Disturbing Influences

continue to manifest themselves whenever the educational uplifters of the Pharmaceutical Society find an opportunity of airing their fancies. Because an unusually large number of persons were reported last week to have been registered as "apprentices or students," Mr. E. S. Peck saw in the fact justification of the Society's action in increasing the stringency of the Preliminary examination. More, he strove to improve the occasion by suggesting that the matriculation standard should in the future—presumably not far distant—be insisted upon. Apparently Mr. Peck regards the entrance examination as one of the obstacles in a kind of educational steeplechase. So soon as an increasing number of candidates manage to surmount this obstacle, it must be raised so as to reduce the numbers of survivors on the course. But I have always understood that the Preliminary examination was intended as a test of general education, rather than a barrier to further progress. I am also conscious of the fact that the standard of the London University Matriculation examination has been steadily reduced since I studied for it long years ago, when Latin and Greek were both compulsory subjects, and the English test would have failed many a Cambridge graduate. Let us be reasonable, and not insist upon absurd standards, higher than those fixed by the General Medical Council and the older universities.

Cannabis Indica

may be useless as a drug, but it has certainly acquired the property of inciting those who meddle unduly with it to do foolish things. All the romance and mystery surrounding hashish and other Indian hemp products, including the wonderful conserve carried by the Count of Monte Cristo in his emerald box, have become attached to the harmless green extract which never hurt anyone beyond making a mess of their feet and foot coverings when included as an ingredient of corn paint. This is another illogical outcome of poison legislation inspired from Geneva by idealists, and a further illustration of the tendency of the pharmaceutical authorities to yield whenever pressure is applied by the Home Office or the Privy Council. The ultimate result will, no doubt, be the disappearance of cannabis preparations from our materia medica. No one will be a penny the worse in the long run, except the growers of Indian hemp and the holders of stocks.

Congratulations

to Mr. E. M. Holmes on his continued vigour shown in writing such lucid explanatory matter as his article printed in the *U. & D.* of October 10 (p. 504). He does well to refer to "the narrow point of view of the British Pharmacopœia," a work which ranks much too high as a guide to materia medica. Peppermint oil is, of course, a generic term, and the usage of the best price lists, as quoted by Mr. Holmes, is to be commended. His appeal for simplicity in terminology is worthy of all support. There was a time when I suffered greatly from the vagaries of botanists who persisted in using the same term for different things and different terms for the same thing. My experience at that time was that chemists were not so bad in this respect, though both chemists and physicists were had enough. Anyhow, simplification is a thing to be encouraged all round.

A New Tax

on the chemist's patience is threatened by the physiological test for cod-liver oil, which you quote from the latest United States Pharmacopœia. At present we are all content to buy our cod-liver oil from reputable wholesale houses, or on samples provided by importers, with a guarantee in respect of its chemical and physical characters. But something much more serious will be involved in guarantees respecting the vitamin content of the oil. No retailer, and few if any wholesalers, will be in a position to apply the necessary physiological tests, so everyone will be dependent upon certificates issued by the conductors of physiological laboratories, who hold Government licences to experiment upon animals. This will add notably to the cost of the oil, and the consumer will wonder what he is getting for the extra money. It will probably be some little time before the British Pharmacopœia embodies a similar test to that of the U.S.P., but already one hears rumours of uncertainty whether some commercial oil may not have been devitalised before it was offered for sale. In my opinion, however, there is nothing substantial behind these rumours.

Co-operative Buying

exists to a greater extent among pharmacists than is generally realised, but it can with advantage be developed to a much larger degree. The letter of "Keen Buyer" in your last week's issue should interest readers who desire to buy on better terms, because he provides what is frequently lacking when co-operative buying schemes are discussed, i.e., a competent and willing buyer. As in so many other departments of human activity, success in co-operative buying often depends upon the efforts of one person in particular. In the present instance we have evidence of the existence of one who must have been successful in overcoming local jealousies, besides buying well for seven or eight shops—presumably belonging to different proprietors. If he knows how to overcome the unwillingness of chemists to adopt better buying methods because they are morbidly anxious to avoid letting anyone know the extent of their purchases, he has made a discovery of no little importance.

Nerves and Worry

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Editorial Articles

Further Factors of Life—II

Fats

THE association of fats and carbohydrates in metabolism is a matter of general knowledge, but the means by which these are mutually transferable remains obscure. The reversible conversion of glucose into glycogen, or of fats into free fatty acids and glycerin, is explainable as an enzyme action varying according to concentration of each product present. On the other hand, to produce a fatty acid from glucose it is necessary to replace hydroxyl groups by hydrogen, link up the six carbon atoms into eighteen of stearic acid, and also oxidise the end of the chain. At will the fatty acid produced may contain only sixteen carbon atoms, as in palmitic acid, or it may become unsaturated, as in oleic acid. These operations require a delicacy of adjustment only possible in a living laboratory. Yet combination of events such as the above takes place outside and inside every working cell in the human body with a facility and a selectivity that is remarkable. Not only are fatty acids by union with glycerin changed into oils and fats, but these are converted into glycerophosphoric esters known as phosphatides (which include lecithin) so that phosphoric acid plays a rôle in fat metabolism analogous to that for carbohydrates in the first article of this series. Quite a lecithin therapy was in vogue twenty years ago, owing to this compound being especially abundant in brain and nerve tissue, and its failure to live up to expectations was due to it being only one of the complex factors of life, as shown below. Human likes and dislikes are not so misleading as dietetic "experts" would have us believe, and the lusciousness of fats satisfies a natural craving which is as healthy as that for the sweetness of sugar, providing either or both are not overdone. Fat adds to the beauty of the human figure, but becomes a burden with the grossness of excess. Fat is necessary to keep us warm, and it also envelops and protects many vital organs. Our muscles are lubricated and sheathed in fat, which can be turned into food in time of need. Fat is a concentrated fuel having twice the energy value of sugar, and the scant attention given in human physiology to fat absorption is explicable only by the ease with which

fat ingested with food reappears as storage fat in adipose tissue and disappears again during starvation. The splitting and reformation of fats under the influence of pancreatic enzyme is a classic example of reversible enzyme action, and suffices to explain the formation of the fatty acids which, as fatty soaps made with bile salts, are absorbed by the chylous vessels of the intestine. However, nothing is taught in physiological text books of the transport of fat in the blood stream or the part it plays in the delicate living structures known as protoplasmic semipermeable membranes. The microscope reveals oil or fat as small globules in many living cells, or as masses swelling out the whole cell (until it obscures everything else as in adipose tissue). Fat, however, may be present in body fluids in so fine a subdivision that its presence can only be demonstrated by the ultramicroscope. Again, its occurrence may be the result of abnormal activity of fat transport, as is the case with the invisible globules which occur in blood plasma when severe demands are made upon fat stored in adipose tissue, but such fat globules are normally absent in the blood stream. Thus in the body fluids and cells fatty inclusions occur in very varied states of subdivision and aggregation, and which, as they are insoluble in water, are collectively known as lipoids. The animal mixes both its fat and carbohydrate metabolism, so that it is impossible to separate these into separate sections, as in chemical classification. The usual function assigned to fat is as an alternative fuel to sugar for energy production of twice the calorific value of carbohydrate, but actuality is by no means so simple as this, for feeding on fat without carbohydrate results in serious metabolic disturbance. Diabetics, who use high fat diets with a low sugar content, are prone to develop acidosis or increase in the hydrogen ion concentration of the blood, which is normally balanced by "buffering" with phosphates and carbonates. Sweet-smelling or "acetone" breath also occurs, and this condition, which is known as ketosis or acetonuria, is due to imperfect oxidation of fats to beta-hydroxy-butyric acid and aceto-acetic acid, instead of to carbon dioxide. The addition of sufficient carbohydrate to the diet enables completion of oxidation, and thereby removes the cause of excessive acidity of the blood stream. Accordingly determination of the carbohydrate tolerance of a patient is of great importance so that the fat/carbohydrate ratio can be regulated to alleviate or prevent ketosis, the permissible proportions being from $1\frac{1}{2}$ to 4 grams of fat to each gram of carbohydrate. Likewise lipoids and "colloids" are conjoined in the activities characteristic of that living structure forming the basis of organised life, and known as protoplasm. Whereas storage fat varies little in composition, the lipoids of the active tissues are a variable mixture and change during metabolic activity. In working organs (kidney, liver, lung, pancreas) and in blood serum the fatty esters of lipoidal constituents may contain up to 75 per cent. of their fatty acids as phosphatides or organic phosphorus compounds (lecithin and cephalin). Cholesterol in ester form is also associated therewith, and the amount of water absorbed or retained by a cell depends upon the cholesterol/fat ratio, as fats repel and cholesterol and lecithin attract water. Fatty soaps, however, have, as shown below, an end in both fat and water, and can form a separating membrane between them. During starvation the fat and protein present in an active cell waste together, but cholesterol is apparently not used up, and thus its proportion increases, so that loss of weight of the cell is minimised by increased retention of water. This effect is particularly noticeable in the brain (which contains free cholesterol with fatty constituents and cholesterol comprising 10 per cent. of its mass), for its weight is unchanged by starvation,

whilst muscle and liver (with about 5 per cent. of cholesterol) may lose 30 per cent. of their weight without fatal injury. Thus the directorate of the body retains its integrity independent of the condition of working cells, which, like the rank and file of the everyday work, starves or stuffs to repletion according to local conditions. Undoubtedly this difference depends upon the structure of molecular membranes, the mesh of which is varied by the configuration of linked molecules of lipoids consisting of fatty acids, fatty esters and fatty alcohols (i.e., fats, lecithins and cholesterol respectively). Thus molecular configuration plays an important part in the newer bio-chemistry of fats, as was found to be the case with carbohydrates. Emulsions consist of soap films separating oil from water (or water from oil), and the phenomenon of reversible emulsification would appear to provide a clue to that varying permeability of the membrane of cells and corpuscles which is one of the marvels of metabolic processes. It is known that when a fatty acid is floated on water its chain of carbon atoms becomes orientated, so that they are ultimately arranged in unimolecular films with the carboxyl group in contact with water and the paraffinoid portion of the fatty acid pointing away therefrom. Simple oil and water emulsions consist of two fluids separated by a layer of soap, with the alkali possessing an affinity for water in contact with water and the methyl group, soluble in oil, immersed in oil. This standing of fatty molecules in serried ranks is particularly interesting as regards the state of emulsification and solution of lipoids and colloids (or proteins) in water. The long chain of carbon atoms of a fatty acid such as palmitic acid is like a row of rods with side connections linking them into a flexible structure resting on the water, each rod occupying an area of 21×10^{-16} square centimetres. Palmitic acid spread over the surface of water behaves as a fluid as regards mobility at blood heat (37°C.), though as a solid it melts at 63°C. In the film of soap which stabilises an oil in water emulsion made with sodium palmitate, acidic hydrogen is replaced by sodium, the atoms of which are oversize. Thus the area of the molecules at the sodium end becomes 30×10^{-16} sq. cm. It is this stretching due to enlargement of the unimolecular layer of soap at the sodium end which stabilises an oil in water emulsion by causing it to arch around and enclose the oil globule. The calcium atom has only half the volume of the sodium atom, and when it is substituted for sodium it links together two rods of fatty acid. Consequently the rods are pulled together, which results in reversal of curvature of the soap film so that oil now surrounds water. This reversal occurs when the proportion of calcium to sodium attains 1 in 50, which is quite close to the ratio present in animal fluids as a whole. Clowes, who determined the inversion point of sodium-calcium soap emulsions, suggests that the living cell membrane is an "emulsoid" or colloidal emulsion containing lipoids. In the resting state the membrane is an emulsion of protein solution in lipid and permeable to fatty substances. Cell activity results in disturbance of balance of ions and a reversal of emulsification, so that a watery solution now surrounds the fatty substances and water soluble salts and sugars can enter. Thus the membrane is neither fat nor protein, but a working combination or sieve of colloid, the pores of which become changed alternately to oil or water. Such considerations have given a fresh stimulus to the behaviour of lecithin in contact with water, for this is a fat with its water-repelling properties modified by the cholyphosphoric acid group. Like palmitic acid, it forms expanded films on water, and, unlike oil, it expands rapidly in contact with water instead of remain-

ing in globules. Likewise the ions of sodium and calcium have quite different effects on lecithin, the latter preventing spreading. Though only a beginning has been made regarding the study of living emulsoid membranes, it is already evident that a delicate balance between lipoids and salts is the controlling influence in the changing permeability of protoplasm which is different in resting and living cells. The paralytic action of narcotics which are soluble in lipoids would appear to be due to destruction of reversibility of emulsoid membrane. The fact that emulsification of fats must precede absorption gives further support to the above ideas. The discovery of fat soluble vitamins has further complicated the study of lipid metabolism, for life is not possible with vitamin-free fats, but cholesterol irradiated with ultra-violet light simulates and can replace the antirachitic vitamin D of cod-liver oil, but not the growth vitamin A of animal fats. Contrarily, water, sugar, glycerin and fat cannot be activated by radiation. A fat soluble vitamin E is found in the germ of wheat, which differs from the other two vitamins, and like water-soluble vitamin B, is an antisterility vitamin. Vagueness and fat soluble vitamins would thus appear to be synonymous. Such considerations and the delicate balance of mineral salts required bring out the intricate processes of fat metabolism. Excess of lime in a water supply like that of London may have a direct effect on such vital processes, unless common salt and phosphates enter into our diet. So it is possible to go on and on, stating that this element, or that form of fat or sugar, or mineral, is the vital principle of life, when in reality all are necessary. Indeed, the "mixed diet" of meat, vegetable, bread, cheese, and milk would remain adequate for all purposes did not modern conditions of purification, preservation and storage introduce factors the effect of which on our existence is becoming a greater strain as time passes. So far as fat is concerned, any natural animal or vegetable oil is fit for food. Fats hardened by catalytic hydrogenation are used without ill effect in animal feeding experiments, so that the use of these in margarine may not be deleterious. Nevertheless, a *ca' canny* policy is advisable in this respect, as traces of nickel or other catalyst could quite possibly produce deleterious effects by changing emulsoid surfaces, and thereby cause those recently discovered ultra-microscopic forms of spheroidal growths which are called virus diseases, and include cancer. Dr. Gye, the discoverer of the virus of cancer, suggests that preservatives may be a cause of cancer, and certainly antiseptic chemicals have a profound cytolytic or disintegrating effect on cell membranes.

So far as pharmacists are concerned there is virtue in the fat content of accessory foods, for it is difficult to get children to take sufficient vitamin active fat for their needs. The widespread substitution of margarine for butter is making the demand for cod-liver oil grow each year, but the newer vitamin therapy indicates that this oil is lacking in fat-soluble growth vitamins A and E, though not in vitamin D, whence may be traced the success of the newer vitamin foods containing animal fat and wheat germ.

The Decline in Cadmium

DURING the last year or two attention has been drawn on several occasions in our Trade Report to the abundant supplies of cadmium metal reaching this market, and the keen competition on the part of interests handling the Australian product. The output of the latter has materially increased during the last three years, owing to the rapid development of electrolytic zinc smelting at Risdon, Tasmania, and to this factor is due the continuous decline which has taken place in the value down to about 1s. 9d. per lb. This figure repre-

sents a depreciation of about 10d. per lb. from the value current towards the close of last year at around 2s. 6d., while the setback as compared with the terms ruling six years ago or in 1919 is as much as 5s. 6d. per lb. The fact may be recalled that until about 1922 the bulk of the comparatively small production was practically confined to the United States and Germany, and the larger portion of the latter country's output was secured from Upper Silesia, part of which territory now belongs to Poland, where large zinc smelting plants are operating. There was a falling off in the total output in 1921 and 1922, largely due to the smaller quantities produced in the United States, but since then the Tasmanian works largely increased their operations, with the result that they dominate the market. A new comer is now being spoken of in the Consolidated Mining and Smelting Co. of Canada, whose recovery of cadmium at their smelting plant in Trail, British Columbia, should be considerable in the near future, seeing that their electrolytic zinc output for the first half of this year has been, according to official returns, double that for the same period last year. The world's production of cadmium, which for 1920 was estimated at roughly 90 tons, amounted in 1922 to 75 tons, but increased again in 1923 to about 200 tons, added to which there was probably a further 50 per cent. increase during last year to, say, about 300 tons. Output returns for the last two years are as yet unobtainable, but it is surmised that the production will continue to expand at the same heavy rate, and may possibly soon reach about 450 tons per annum. It is to be expected that selling agents for American and Continental cadmium, who have reluctantly followed the fall in price to some extent in months past, will eventually have to meet Australian offers on a more competitive basis in order to avoid accumulations of stocks. An interesting pamphlet was recently issued by the Imperial Institute dealing with the history of cadmium, and giving many particulars relating to the development of the world's production and commercial uses. Some idea of the fluctuations in the price is conveyed by the following figures:—

	1919	1920	1921	1922	1923
Per lb.	s. d.	s. d.	s. d.	s. d.	s. d.
London average price	7 2	6 6	6 1	5 8	4 7½

There has thus been a continuous break in the price, which has been more particularly marked down to about 2s. 6d. by the close of last year; and although the market held up at the latter figure in the first quarter of this year, Australian official agents, as already stated, have cut the price to 1s. 9d. per lb. According to the survey of the Imperial Institute, the world's average production about ten years ago represented only 20 tons. The imports into the United Kingdom in 1923 must have been largely in excess of those of the previous year, seeing that the Risdon production in that year amounted to over 100 tons. Cadmium is being produced in England and Belgium in unrecorded quantities. The most important present use of cadmium is as a constituent of alloys with exceptionally low melting points. Such alloys are mixtures of cadmium, lead, tin, and bismuth in different proportions. Copper wire containing small percentages of cadmium is used for electrical transmission. The electrical conductivity of such an alloy is 89 per cent. of that of pure copper. An alloy of copper with 0.5 to 1.2 per cent. of cadmium has been used with success for wireless aerials, long-span transmission wire and wire for overhead trolley use. Of all applications of cadmium in the future, this will, it is stated, be the most important. Cadmium-silver alloys containing over 89 per cent. of silver are uniform and well suited as material for trial plates for silver coinage and ware, for which the silver-copper alloy is not quite suitable. Patented alloys of lead and cadmium have been proposed as bearing metals. Cadmium is also used to replace tin,

partly or entirely, in solders. As a result of a series of investigations conducted at Risdon, solders have been developed in which a considerable proportion of the tin of ordinary solders has been replaced by cadmium without any appreciable diminution in the applicability or general utility of the solder. An amalgam of cadmium was formerly used in dentistry, but its use has been discontinued, as it produces discoloration of the dentine. The following chemical compounds of cadmium have been used in industries: The chloride, for testing pyridine bases in calico printing and dye works, also in photography and in medicine; the iodide in medicine and for iodising collodion plates in photography; the hydrate bromide in photography and in medicine; the tungstate as a paint for fluorescent screens in radioscopy; the salicylate as an external antiseptic; the sulphate as an electrolyte in the Weston cell and also in medicine for affections of the eye, and the acetate in dentistry. Cadmium gives a brilliant spectrum of red, green and blue lines, and its use has been suggested as a convenient standard in refractometry. Many other more or less important uses have been mentioned for cadmium, and there is no doubt that the outlet for the metal will in time be extended at the much reduced price ruling.

Adulterated French Lavender Oil

THE extremely high price of French lavender oil this season is causing much more adulteration of this important oil than usual; in fact, adulteration has reached such a pitch that one rarely meets with a genuine and pure oil. For this serious condition of affairs, buyers are largely responsible, because of the fact that although many buy only on price and description, even discriminating buyers are frequently misled by laboratory analyses. The former use of ordinary spike lavender oil as an adulterant is nowadays improved upon by the substitution of acetylated spike oil, and a still more common form of sophistication is the addition of artificial esters of high specific gravity but of small odoriferous value to lavenders of low specific gravity. Recently, crude mixtures of lavender oil with petitgrain oil have been noticed, also other adulterants such as terpenes and natural oils, containing linalol compounds. In fact, it is impossible to enumerate all the weird and wonderful blends that are being offered to the English buyers. British manufacturers of perfumery products are no doubt well aware of these facts, and those who wish to maintain their reputation in the world's markets will buy a pure oil only.

Recent Patents

Abstracts of specifications of recently-granted patents for inventions. The complete specification (1s. each including postage) of any British patent can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

Arsenical Ureas.—A process for the manufacture of the symmetrical urea of *p*-oxy-*m*-aminophenylarsinic acid, based on the interaction of phosgene and the acid in alkaline solution, and also of its amino-acidyl derivatives. (Chemische Fabrik auf Aktien vormals E. Schering. 236,563.)

Bleaching Oils.—A process for bleaching oils, fats and fatty acids, consisting in mixing the oil with solution of hydrogen peroxide containing more than 15 per cent. by weight of hydrogen peroxide, and heating the mixture to about 80° C. (Naamlooze Vennootschap Ant. Jurgens' Margarinefabrieken. 226,818.)

Sulphur.—A process for producing finely divided sulphur of a colloidal nature with the aid of the reaction between alkali metal polysulphides or ammonium polysulphides, or alkaline earth metal (including magnesium) polysulphides and sulphur dioxide gas, in which the temperature of the reaction is controlled so as to be as far below 60° C. as is economical and the finely divided sulphur is separated. (W. F. Sutherst. 238,385.)

Pharmaceutical Society of Great Britain

Qualifying Examination Results

THE following are the results of the Qualifying examination of the Pharmaceutical Society, held in Edinburgh during the present month:—

—	No.	PART I				PART II			
		Absent	Failed	Referred	Passed	Absent	Failed	Referred	Passed
Entered for whole examination...	6	—	1	3	2	1	—	—	1
Entered for Part II and referred subject in Part I...	8	—	—	4	4	2	—	—	2
Entered for Part I only...	22	—	12	5	5	—	—	—	—
Referred subject in Part I only...	28	1	—	5	22	—	—	—	—
Entered for Part II only...	30	—	—	—	—	2	2	8	18
Referred subject in Part II...	39	—	—	—	—	3	—	3	33
Total ..	133	1	13	17	33	8	2	11	54

Referred in one subject:—Botany, 4; chemistry, 13; pharmacognosy, 5; pharmacy, 6. Total, 28.

CHEMIST AND DRUGGIST QUALIFYING EXAMINATION (PART II)

The following, having satisfied the examiners in this examination, have been registered as chemists and druggists:—

Alexander, W. H., Huntly
Baddon, D., Muir-of-Ord
Barnetson, A. H., Edinburgh
Beattie, G. A., Old Aberdeen
Beattie, J. W., Edinburgh
Bell, J. H., Forest Hall
Billington, R., Blackburn
Booth, F. L., Ripponden
Brierley, J., Manchester
Buchanan, W., Airdrie
Calder, R. S., Glasgow
Chapman, J., Torphins
Chapman, T. L., Troon
Coyne, Margaret, Edinburgh
Cumming, D. D., Rothes
Darke, R. W. M., South Shields
Drummond, C. G., Leith
Dugdall, S., Hull
Duncan, A. S., Fraserburgh
Eccles, W., Bacup
Fawcett, R. E., Bonnybridge
Gale, J. R., Gateshead-on-Tyne
Greenwood, G., Bradford
Gregory, J. P., Chorley
Griffith, C. H., Manchester

Harrison, W. H., Edinburgh
Higson, W. R., Bolton
Hindley, J. P., Wigan
Jones, G. E., Bridgend
L'Etang, J. H. B., Mauritianus
Lumb, S., Halifax
McLaren, J. M., Edinburgh
Machell, T., Heckmondwike
Mathieson, E., Glasgow
Middleton, A., Dufftown
Muir, J. G., Edinburgh
Paterson, D. J., Kirkwall
Pratt, G. A., Turriff
Purdie, D., Arbroath
Ratcliffe, H., Blackburn
Robson, J., Stockton-on-Tees
Scott, Janet McI., Glasgow
Sharples, H., Bolton
Simpson, A. E. G., Hebburn-on-Tyne
Sloan, W. McM., Stranraer
Spence, H. T., Garmouth
Spence, J., Sunderland
Stevenson, J., Prestwick
Stewart, G. G., Kirkcaldy
Wood, G., Sunderland
Wray, J., Lemington-on-Tyne

PRELIMINARY SCIENTIFIC AND CHEMIST AND DRUGGIST QUALIFYING EXAMINATIONS (PARTS I AND II)

The following, having satisfied the examiners in these examinations, have been registered as chemists and druggists:—

Brown, M. T., West Stanley
Hamilton, A. W., Hawick
Sanders, A. A., Greenfield

Pharmaceutical Society of Ireland Annual Meeting

THE annual meeting was held at 67 Lower Mount Street, Dublin, on October 5, Mr. Richard Blair (President) in the chair. There were also present Mr. G. A. McLean Lee (Vice-President), Mr. D. M. Watson (Hon. Treasurer), Dr. J. A. Walsh, Dr. A. J. Barnes, Dr. J. A. Mitchell, Dr. James S. Ashe, Dr. H. Hunt, Messrs. George Brown, Wm. Jones, James Duggan, P. D. Larkin, R. E. Campbell, T. Costelloe, D. Dargan, Fred. Storey, J. Timoney, John Smith, M. V. Sargent, Wm. Murphy, T. J. Smith, J. Fitzpatrick, Victor E. Hanna, and Denis J. Nugent.

MISS GRENE, Assistant Registrar, read the minutes of the previous annual meeting, and they were adopted and signed.

ELECTION RESULTS

THE PRESIDENT announced the result of the ballot for the election of seven members to the Council of the Society. Of the seven members of the Council who retired by rotation—Dr. A. J. Barnes, Dr. Michael Ryan, Messrs. Bingham, McCartney, Watson, Smith and Blair—three, Dr. Barnes, Messrs. Bingham and McCartney, did not seek re-election. The result of the voting was as follows:—Dr. Michael Ryan, 153; John Smith, 149; David M. Watson, 145; Joseph Gorry, 141; Richard Blair, 140; George Brown, 134; Thos. J. Doyle, 125; Wm. P. J. Gannon, 125; Arthur Mayne, 115.

The report of the scrutineers stated that 217 voting papers were received. Thirty-six other papers were received from those whose subscriptions were not paid. No voting papers were spoiled.

THE PRESIDENT said that two of the candidates, Messrs. Doyle and Gannon, had received the same number of votes. It rested with him, in the event of a tie, to give a casting vote. As there were plenty of city members he would give his vote to the country candidate, Mr. Gannon. That would give Mr. Gannon 126 votes as against Mr. Doyle's 125. He thereupon declared Dr. Ryan, Messrs. Smith, Watson, Gorry, Blair, Brown and Gannon elected.

STATISTICS FOR 1925

THE PRESIDENT said the year they had gone through had been a difficult one. Owing to the illness and the enforced absence of their Registrar, it had been very hard for them to keep their work in order. Miss Grene had come to help them as their Assistant Registrar, and she had done marvellously up to the present. (Hear, hear.) He read the statistical statement, which was as follows:—

The Registers

	1924	1925	Increase	Decrease
Pharmaceutical Chemists	1,269	1,330	51	—
Pharmaceutical Assistants	287	294	7	—
Chemists and Druggists ..	77	76	—	1
Registered Druggists ..	706	739	33	—
	2,339	2,439	91	1

Subscribers

	1924	1925
Members	372	494
Associate Druggists ..	35	76
	407	570

THE deaths recorded included the following:—*Pharmaceutical chemists*: James Mahony, Michael Howard, Willam Sheilds, James J. Bolger, Thomas Johnston, Dr. J. F. Stevenson, Richard Sumner, John Smiley Anderson, Charles Hope Nesbitt, Richard Austin. *Chemists and druggists*: James Soden.

EXAMINATIONS

Preliminary

	1924	1925	Increase
Candidates	189	270	—
Candidates rejected ..	83	129	—
Candidates passed ..	106	141	35
Candidates registered on Certificates from other Bodies	39	66	27
	145	207	—

During the past twelve months six candidates passed with honours: Caitlin O'Kelly, 82½ per cent.; Michael Fortune, 78½ per cent.; Mary J. O'Donnell, 73½ per cent.; Jane Macarthy, 73 per cent.; Abraham E. Malamed, 71 per cent.; Mary E. Dunphy, 70 per cent.

Pharmaceutical Licence Examination

	1924	1925	Increase
Candidates	106	121	15
Candidates rejected ..	66	69	3
Candidates passed ..	40	52	—
Net increase successful, 12			

During the twelve months five candidates (the same number as during the previous twelve months) passed with honours: Charles A. Quinn, 74 per cent.; James A. Rourke, 74 per cent.; James J. Mullan, 73½ per cent.; Gladys E. McCann, 70½ per cent.; John J. Shanahan, 70½ per cent. No medal was awarded.

Pharmaceutical Assistant Examination

	1924	1925	Decrease
Candidates	18	14	4
Candidates rejected ..	9	7	2
Candidates passed ..	9	7	2

Registered Druggist Examination

	1924	1925	Increase
Candidates	39	52	13
Candidates rejected ..	9	18	9
Candidates passed ..	30	34	—
Net increase successful, 4			

FOUR Registered Druggist examinations were held at Belfast, accommodation for which were provided at the Queen's University through the courtesy of the authorities.

PRIZES AWARDED

School of Chemistry.—First prize: A. Maher, 85 per cent. and 82 per cent. Second prize: P. Godfrey, 80 per cent.; W. Rutledge, 80 per cent.; J. Smyth, 77 per cent.; J. J. Foley, 77 per cent.; W. B. Curry, 75 per cent.; P. F. O'Byrne, 75 per cent.

Materia Medica Class.—Patrick Godfrey, 95 per cent.; J. A. Rourke, 90 per cent.; Anthony Dromgoole, 70 per cent.; Miss Lena McDevitt, 70 per cent.

Botany Class.—P. Godfrey, 89 per cent.; Ernest Pitt, 83 per cent.; Anthony Dromgoole, 75 per cent.

EXAMINERS

THE following changes took place in the Board of Examiners during the twelve months: Mr. T. J. Smith was appointed Pharmaceutical Licence examiner in place of Mr. Robert Mellon, resigned; Dr. James Devane, M.B., in place of Mr. Hill, whose full term of five years had expired.

COUNCIL CHANGES

MESSRS. R. E. Campbell, T. W. Corcoran, P. B. Kelly and James McCormack were elected members of the council and Mr. William F. Kirby was co-opted member of council in place of Mr. T. W. Corcoran, resigned.

SCHOOL ATTENDANCE

THE students attending the Society's Schools were as follows:—

	1924	1925
Theoretical chemistry	50	40
Practical chemistry	41	41
Botany and materia medica	48	65
	139	146

FINANCIAL STATEMENT

MR. WATSON (hon. treasurer) then made his financial statement. He said the statement of accounts was before them, and scarcely needed much elaboration. He might perhaps compare the figures with those of the previous year. They had a decrease of income of about £8. But in the previous year's income there was included £165, which was a profit on the transfer of their investments from English Government stock to their own. So that they actually had an increased income from ordinary sources of about £157. Their expenditure as compared with that of last year was £334 up. That was principally due to the fact that there were payments for two years' calendars included in this year's accounts. Their surplus income for this year amounted to £570, which was a decrease of £341

as compared with the surplus of last year. They had £1,390 in the bank and in hand, as compared with £838 last year. They had brought investments, stock and utensils and premises into the balance sheet at the same figures as last year; and the library, furniture and fittings had been written down on the same basis as last year. Sundry debtors totalled £88, as compared with £28 for last year. Their sundry creditors were practically the same as last year, being £158, as compared with £152. The figure of capital now stood at £4,759, the figure last year being £4,189. As regards the schools accounts, he was not the treasurer of the schools, but the accounts which Mr. Kidney audited had been handed to him. The School of Botany and Materia Medica came in with a balance of £44 16s. 7d. and went out with a balance of £59 2s. 8d. The Chemistry School came in with £72 and finished up with £69.

THE COUNTING OF THE VOTES

Mr. NUGENT expressed his regret that he had not been present at the opening of the meeting. He had thought that it was to commence at eight o'clock instead of at half-past seven. He was anxious to know how they had arrived at the figures for the Council election.

The PRESIDENT read the report on the ballot already submitted to the meeting.

Mr. NUGENT said he was sorry he could not agree with those figures. He did not see that there was any rule in the *caendard* to show that these thirty-six members were disfranchised in any way. The real figures should be: Dr. Ryan, 182—

Mr. WATSON: On a point of order, I think the poll has been declared, and I do not think any other figures should be recited or published.

Mr. NUGENT: Excuse me. You have no right whatever to disfranchise thirty or forty voters.

The PRESIDENT said there was a note that thirty-six other papers were received from those whose subscriptions were not paid. According to custom, these votes were not counted.

Mr. NUGENT: I protest against it. I am sorry. The result of the ballot would be quite different.

The PRESIDENT: I think you were there at the election.

Mr. NUGENT: Yes, and I made my protest at the time.

The PRESIDENT: When the counting of the votes was finished there remained a number of papers from members who had not paid their subscriptions.

Mr. NUGENT: They were there before the counting started, and I stated I wanted the votes examined.

Mr. WATSON: The whole discussion is out of order. The poll has been declared, and if Mr. Nugent objects perhaps there are other ways of testing it. Once you declared the poll I submit that it cannot be discussed.

Mr. NUGENT: Though I am out of order I still must make my protest.

The PRESIDENT: I cannot entertain it.

ACCOUNTS ADOPTED

The VICE-PRESIDENT proposed the adoption of the statement of accounts. He called attention to an item in the balance sheet for £111s. 6d., "for unpaid cheque: drawer deceased," and which was put down as an asset. He suggested that that was a debt which they would never be able to collect.

Mr. WATSON explained that the drawer of the cheque died between the time that it was received and the date on which it was lodged. They considered that the deceased's estate was good for the amount if they liked to send in the claim. That was a matter for the Society to consider.

The PRESIDENT said it was a very peculiar question, but he thought the Treasurer's reading of it was correct.

Mr. STOREY seconded the motion for the adoption of the statement of accounts. He congratulated Mr. Watson on the lucid way in which he had placed the accounts before them, and he congratulated the President on having completed his first year of office. When the President read out the names of the gentlemen who had gone to the great majority, he was reminded of an old friend of his, Mr. Johnston, of Newtownbutler, who was registered in 1892. The Chemists and Druggists were a dying body, and he thought there were very few of them left.

The funds of the Society showed a decided increase. It was hard to tell how they would stand in the future. But let them hope that the membership would not deteriorate as some thought it would owing to the change in the pharmacy laws and regulations in the North. The new Society that had been set up there would certainly make a change; but he could assure them that there were a great number of pharmaceutical chemists in the six counties, and also associate druggists, who would continue as members and associates of the old Society. (Hear, hear.) He thought the majority of the new members who joined the Society last year were from the six counties; and it did not look as if these men would discontinue their subscriptions after a year. Personally, he did not intend to drop his subscription to the old Society. He certainly thought that they all had a very kindly feeling towards the Society in the South. It was unfortunate that there should be a division of the Society, but they in the South could not help it, and they in the North could not help it.

Dr. ASHE: You could.

Mr. STOREY, continuing, said they had something to say in the matter in the South. They in the North could not have avoided it, he thought, with all due respect to Dr. Ashe. They had not been in favour of any change as regards the old Society. The Northern Government insisted on having a change there, and if the Free State Government insisted on having a change in the Free State, they in the South would have to take it as they in the North had had to take the change there. He had been reading a short time ago the report of the last meeting of the Society, when Dr. Ashe spoke of the partition of the Society, and Dr. Walsh suggested that he had omitted a syllable, and that the word should be "parturition" and not "partition," because a new Society was to be born, and the new Society would be a credit to the parent body. He (Mr. Storey) hoped that it would be. The legislation that had been introduced in the six counties had been influenced by the experience that some of the members of the Society had in the South. They would have liked, if possible, to have had the assistance of some fresh legislation in the South to help them in drawing up the clauses for the Northern Bill. They had done their best. They had taken powers for reciprocal treatment; and he thought it was the earnest wish of all the chemists and the druggists of the six counties that there should be some kind of reciprocity between the two Societies. They would have to make some changes in their pharmacy laws in the Free State; and he hoped they in the South would endeavour to back up the North in the matter of reciprocal treatment. The Chemists and Druggists' Society to which he had the honour to belong had decided that there would be no partition as far as it was concerned; and they hoped to carry on as an all-Ireland Society. They were recently discussing possible changes in the pharmacy laws in the Free State, and one gentleman present remarked that they had to watch new legislation in the Free State, because they themselves might yet be working under it. So that they in the North took an interest in what was going on in the twenty-six counties. It was quite likely that any new legislation might affect North or South. Let them hope that there would at least be harmony and an amicable working of the two Societies.

The PRESIDENT said they reciprocated the kindly wishes of their Northern friends. They would always have the same feeling towards the members from the North as towards those from the South. (Hear, hear.)

The resolution was unanimously adopted.

THANKS TO THE PRESIDENT

Dr. ASHE proposed a vote of thanks to the President, who had come a long distance, and trains from Cork were not as frequent as they used to be. From what members told him he believed Mr. Blair had been a great success as President, and he congratulated him. Mr. Storey had tried to stir him (Dr. Ashe) up. It was all very well for Mr. Storey, in the good wishes of his heart, to speak about reciprocity and about their working together. They would not be able to work together; and the sooner they learned that the better. They could not work together in different States. In the North there would be a kind of colony. In the South they had Dominion

status. The medical profession had learned that very much to their cost within the last three or four months. The late Dr. McWalter, a gentleman who would be respected and honoured as long as the Pharmaceutical Society lasted, was the first man that he had ever heard point out what their status would be from a medical and a pharmaceutical point of view. He (Dr. Ashe) hoped and trusted for the best; but he did not see that they could be any longer the Pharmaceutical Society of Ireland, any more than the medical colleges would be able to have jurisdiction all over Ireland. It was a very sad state of affairs. Union was always strength. As regards the medical profession and as regards the Pharmaceutical Society, the North being away from them must be a loss to them. He deeply regretted it. He had done everything he possibly could to bring about some federal working arrangement; and he hoped to live to see the day when a federal arrangement between the North and the South would be working. (Hear, hear.)

Dr. MITCHELL seconded the vote of thanks. He said that those of them who had attended there month after month at the meetings of the Council would agree that they were greatly indebted to the President. He believed that he had not missed a single meeting in the twelve months. (Hear, hear.) A very much younger man than the President would find very hard the long journey from Cork to Dublin every month. On one very severe day he met the President on O'Connell Bridge when the cold wind and rain were bearing into his face, and he told him that he had left home shortly after seven o'clock that morning to come to preside at their meeting, and that he would not get back probably until about two or half-past two the following morning. That was a wonderful achievement for their President. The members of the Pharmaceutical Society all over Ireland should feel very grateful indeed to him. The President felt that his position as such was a very dignified position, and he had added great lustre to the Society owing to his attitude in that respect. It was not fully recognised all over Ireland that the Pharmaceutical Society was a very important body. He said that because of the poor attendance at the annual meetings. There were more present that night than were usually present. At that time twelve months ago a member from the North drew attention to the fact that there were very few present outside the Council. He was glad to see that there were more present that night. He would like to see members from the North, South, East and West coming there on the only night in the year when they could air their views, and recognising what the Council had done during the year.

Mr. WATSON supported the vote of thanks. He said he thought it ought to be mentioned that during the time the trains were not running to Cork at all, Mr. Blair used to come to Dublin by sea. He thought it used to take fifteen hours' sailing from Cork and fifteen hours sailing back.

Mr. MURPHY said he had worked for Mr. Blair and his respected father thirty years ago. He had never worked for kinder employers or better gentlemen.

The PRESIDENT, responding to the vote of thanks, said he was very grateful to Dr. Ashe and the other gentlemen who had spoken for the way in which they had referred to him. He had always looked forward to being President, and though he had to wait a good many years, while he was President he would do his duty to the utmost of his ability. (Hear, hear.) It was always a pleasure to him to meet his friends in the Council. He was greatly handicapped by the distance at which he lived from Dublin. It took him a day and a-half, or perhaps two days, to attend a Council meeting. The Committee meetings were held in the morning. He could attend a Committee meeting of vital importance if it were held at three o'clock in the afternoon. But up to the present the Vice-President and other members had not demanded his presence. They had been kind enough to let him off. The spade work was done in the Committee meetings. The Council meetings were more ornamental and perhaps more dignified. He was deeply grateful to the Vice-President, to Mr. Watson, and the other members of the committees for attending in his absence. (Applause.)

APPRECIATION OF OFFICIALS

Mr. HANNA said that this being the first annual meeting from which Mr. Ferrall, their late Registrar, was absent, he thought they ought to send a letter wishing him every blessing in his retirement, and that he may be spared many years to draw the pension which had been given to him. He thought they should also extend a very hearty welcome to Miss Grene on that the first occasion on which she had attended an annual meeting. Miss Grene had filled the gap in a way that very few thought she could do it; and it had been a surprise to many of them that the work of the Society had gone on so well during Mr. Ferrall's absence. (Applause.)

The PRESIDENT said he was sure they all endorsed the words of Mr. Hanna. It was a great shock when they saw that Mr. Ferrall, who had been their Registrar for so many years, was getting into bad health. Miss Grene had certainly done wonders. She took up duty at a time when, owing to the pressure of work, parliamentary and otherwise, it was very hard upon her. But she rose to the occasion.

PRESENTATION TO EX-PRESIDENT

The PRESIDENT presented Dr. Barnes, his immediate predecessor in the chair, with a replica of the presidential badge of the Society in recognition of his able occupancy of the office. Dr. Barnes had been, he thought, nearly three years President of the Society in a most difficult period. It gave him great pleasure to hand him the replica of the badge, and he hoped he would be long spared to wear it with credit to himself and with credit to the Society.

The PRESIDENT made the presentation amidst applause. Dr. BARNES said he was very much obliged to the President and the Council for giving him that very handsome replica of the presidential badge. He would always look upon it as a memento of a very pleasant period of his life, and it would be always a reminder of a very great honour that he highly appreciated—the honour of having occupied the chair of the Society for three years.

Council Meeting

At the monthly meeting of the Council of the Pharmaceutical Society of Ireland, held at 67 Lower Mount Street, Dublin, on October 13, Mr. Richard Blair was re-elected President, Mr. G. A. McLean Lee was re-elected Vice-President, and Mr. D. M. Watson was re-elected hon. treasurer. Mr. R. J. Kidney, F.S.A.A., was elected auditor. All the elections were unanimous.

Preliminary Examination Results

The following passed, arranged in order of merit:—Sarah Enright, John Joseph Barry, Patrick T. Crowley, Alicia Dorothy Martin, Sydney Brass, Brendan Kavanagh, Robert Miller McKechnie, Frances Robina Johnston, Eleanor Dorothy Pratt, Minnie Rachel Stein, David Wm. Bleakley, Michael Henry Duff, John Frederick Martin, Wilson L. McDonnell, Francis Darcy, Mary W. Rainsbury, Esther M. O'Connor, Michael J. Hayes, Hugh Joseph Gunn, Michael J. Fitzgerald, James J. Hagan, James A. G. O'Keeney, Maureen O'Halloran, James P. Hutchison, Thomas A. Howard. Thirty-three candidates were rejected.

THE exports of chillies from the Colony and Protectorate of Kenya and Uganda Protectorate during the first six months of 1925 amounted to 1,216 cwt., against 11,532 cwt. for the first six months of 1924.

A HINT ON GIVING CREDIT.—Presiding at Leicester Police Court, at the conclusion of a case in which a woman was placed on probation on charges of obtaining goods by false pretences, Mr. G. J. B. Woolley, chemist and druggist, called attention to the easy way in which credit could be obtained at many shops, that being calculated to encourage the kind of thing the magistrates had just dealt with. In the case in question, he said, there seemed to be no security, the goodwill of the customer apparently being depended on. Traders ought to take reasonable precautions to make such frauds difficult of accomplishment.

The New U.S. Pharmacopœia.

THE more salient features, as well as the principal innovations embodied in the tenth edition of the United States Pharmacopœia, were dealt with in an editorial article in our issue of October 10, p. 510. In the following notes on the single monographs we record essential modifications in the text, particularly in regard to standards of purity and methods of assay, as compared with the preceding edition. To facilitate this comparison between the standards in the two editions, wherever a change in a test is described, the corresponding requirement in the U.S.P. IX is inserted in parentheses. In many cases the application of certain tests for identity and purity is rendered more precise by the omission of the word "about" without any further textual alteration. In assaying acids the use of normal solution of potassium hydroxide has been replaced by that of sodium hydroxide. Unless otherwise stated, the standard temperature is 25° C. The following notes are arranged in accordance with the official Latin titles adopted in the U.S.P. X.

Acacia.—Gum acacia yields not more than 1 per cent. of water-insoluble residue, and not more than 15 per cent. of moisture.

Acetphenetidinum.—PHENACETIN.—Melting point between 134° and 135° (133°-135°). Boil 0.5 gram (about 0.1 gram) with 10 c.c. of distilled water for one minute, cool, filter, and add bromine test solution to the filtrate, drop by drop, agitating after each addition, until the solution remains permanently yellow: neither turbidity nor precipitation results (*acetanilide*).

Acidum Aceticum.—Contains 36 to 37 per cent. of hydrogen acetate as heretofore. Normal sodium hydroxide solution, instead of potassium hydroxide, is to be used for titration, with phenolphthalein as indicator; 1 c.c. *N*/1 solution of sodium hydroxide=0.06004 gram of absolute acetic acid. Separate portions of 1 c.c. each of acetic acid diluted with 10 volumes of distilled water show no turbidity on the addition of 5 drops (a few drops) of barium chloride test solution (*sulphate*), and no opalescence with 5 drops (a few drops) of silver nitrate test solution (*chloride*). Evaporate 20 c.c. of acetic acid on a water bath, and dry to constant weight at 100° (new); the weight of the residue does not exceed 0.002 gram. Preserve in glass-stoppered bottles.

Acidum Acetylsalicylicum.—[NEW.]—The melting point, when determined in a bath previously heated to 120°, is not below 132°. Ash not more than 0.05 per cent. Dissolve 0.1 gram of acetylsalicylic acid in 1 c.c. of alcohol, dilute the solution with 48 c.c. of cold distilled water, and add at once 1 c.c. of a freshly-prepared diluted ferric ammonium sulphate solution (made by adding 1 c.c. of *N*/1 hydrochloric acid to 2 c.c. of ferric ammonium sulphate test solution [8:100] and diluting with water to 100 c.c.); the coloration, if any, produced in one-half minute, is not greater than that produced in a control test, using 1 c.c. of a solution containing 0.1 gram of salicylic acid and 1 c.c. of glacial acetic acid in 1 litre of water (*free salicylic acid*).

Assay.—Add 50 c.c. of *N*/2 sodium hydroxide to about 1.5 gram of acetylsalicylic acid, previously dried for three hours over sulphuric acid and accurately weighed, and boil gently for ten minutes. Titrate the excess of sodium hydroxide with *N*/2 sulphuric acid, using three drops of phenolphthalein test solution as indicator. Make a blank test, using 50 c.c. of *N*/2 sodium hydroxide, and from the comparisons make any necessary corrections. Each c.c. of *N*/2 sodium hydroxide corresponds to 0.04503 gram of acetylsalicylic acid.

Acidum Acetyltannicum.—DIACETYLTANNIC ACID, TANNYL ACETATE, ACETANNIN.—[NEW.]—No formula is given, also no melting point. Ash not more than 0.3 per cent. Dry about 1 gram, accurately weighed, for three hours at 100°, the loss does not exceed 3 per cent. Shake 1 gram of acetyltannic acid with 50 c.c. of distilled water during five minutes and filter; a 25 c.c. portion of the filtrate requires for neutralisation not more than 1.2 c.c. of *N*/10 sodium hydroxide, using 3 drops of phenolphthalein test solution as indicator (*free acid*). To the remainder of the filtrate add 2 drops of ferric chloride test solution, a green but not a blue colour is produced (*free tannic acid*). Digest 1 gram of acetyltannic acid with a solution of 2 grams of sodium bicarbonate in 200 c.c. of distilled water for three hours at about 40°, filter through a counterbalanced filter or a Gooch crucible, wash the insoluble residue with four portions of distilled water, 10 c.c. each, and dry to constant weight at

110°. The weight of the residue does not exceed 0.15 gram. Digest 1 gram of acetyltannic acid with 200 c.c. of distilled water for two hours, shaking at frequent intervals. Filter through a dry filter into a dry flask, rejecting the first 20 c.c. of the filtrate, evaporate 100 c.c. of the subsequent filtrate to dryness on a water bath, and dry the residue for three hours at 100°. The weight of the residue does not exceed 0.03 gram (*soluble substances*).

Acidum Benzoicum.—Required to contain not less than 99.3 per cent. (99.5 per cent.) of pure benzoic acid. Dissolve 0.3 gram of benzoic acid in 15 c.c. of hot water, and add to the solution 2 c.c. of *N*/10 potassium permanganate; the odour of benzaldehyde is not perceptible (*cinnamic acid*). Mix 0.5 gram of benzoic acid and 0.7 gram of calcium carbonate with a little distilled water in a crucible, dry the mixture and incinerate it at a low red heat. Dissolve the residue in 20 c.c. of diluted nitric acid, filter, wash the filter and insoluble residue with 15 c.c. of distilled water, add to the filtrate 0.5 c.c. of *N*/10 silver nitrate, and dilute with distilled water to 50 c.c. Dissolve 0.7 gram of the same calcium carbonate in 20 c.c. of diluted nitric acid, filter if necessary, add 0.5 c.c. of *N*/10 silver nitrate, and dilute with distilled water to 50 c.c. Add to this solution *N*/50 hydrochloric acid, drop by drop, mixing well after each addition, until the turbidity matches that in the test with the benzoic acid. If the synthetic acid is tested, not more than 0.6 c.c. of *N*/50 hydrochloric acid is required in the control test to match the turbidity, and, if the natural acid is tested, not more than 0.3 c.c. of *N*/50 hydrochloric acid is required (*chlorinated compounds*).

Assay.—Dry about 1 gram of benzoic acid at 100° for two hours, and dissolve 0.5 gram of the dried acid, accurately weighed, in 25 c.c. of diluted alcohol, which has previously been neutralised with *N*/10 sodium hydroxide, using 3 drops of phenolphthalein test solution as indicator. Titrate this solution with *N*/10 barium hydroxide until the pink colour is restored. From the number of c.c. of *N*/10 barium hydroxide consumed, subtract one-fifth of the volume of *N*/50 hydrochloric acid used in the test for chlorinated compounds. Each c.c. of *N*/10 barium hydroxide corresponds to 0.01221 gram of benzoic acid.

Acidum Boricum.—Each c.c. of *N*/1 sodium hydroxide used in titration corresponds to 0.06192 gram (0.06202 gram) of boric acid.

Acidum Citricum.—The specifications of the B.P. 1914 test for tartaric acid have been adopted. The test for oxalic acid has been modified: neutralise 10 c.c. of an aqueous solution of the acid (1:10) with ammonia test solution, add 5 drops of diluted hydrochloric acid, cool, and add 2 c.c. of calcium chloride test solution, no turbidity is produced. Each c.c. of *N*/1 sodium hydroxide used in titration corresponds to 0.07004 gram (0.07003 gram) of citric acid.

Acidum Hydriodicum Dilutum.—The formula for the preparation of diluted hydriodic acid has been slightly altered: Potassium iodide, 135; hypophosphorous acid, 26 c.c. (instead of potassium hypophosphite, 10 grams); tartaric acid, 122 grams (instead of 136.5 grams). Limit tests for chloride and sulphate are included: 10 c.c. of diluted hydriodic acid shows no more sulphate than corresponds to 1 c.c. of *N*/50 sulphuric acid. Mix 0.5 c.c. of diluted hydriodic acid with 10 c.c. of distilled water, add 8 c.c. of silver nitrate test solution and 6 c.c. of ammonium carbonate test solution, digest the mixture for ten minutes on a water bath, cool, and filter. The filtrate upon supersaturation with nitric acid shows no more chloride than corresponds to 0.5 c.c. of *N*/50 hydrochloric acid. The method of assay is the same, except that now each c.c. of *N*/10 silver nitrate corresponds to 0.01279 (instead of 0.012793) gram of hydriodic acid.

Acidum Phosphoricum.—Specific gravity about 1.71 (about 1.72). Each c.c. of *N*/10 silver nitrate used in titration corresponds to 0.003269 (instead of 0.003587) gram of phosphoric acid.

Acidum Salicylicum.—Is now required to contain not less than 99.5 (instead of 99.3) per cent. of salicylic acid, and each c.c. of *N*/10 barium hydroxide now corresponds to 0.01381 (instead of 0.013805) gram of acid. Melting point between 157° and 159° (156° and 159°). Ash not to exceed 0.05 (instead of 0.1) per cent.

Acidum Sulphuricum.—Each c.c. of *N*/1 sodium hydroxide corresponds to 0.04904 (instead of 0.049045) gram of sulphuric acid.

Acidum Tartaricum.—Each c.c. of *N*/1 sodium hydroxide corresponds to 0.07504 (instead of 0.07503) gram of tartaric acid.

Acidum Trichloroaceticum.—Limit of chloride to correspond to 0.5 c.c. of *N*/50 hydrochloric acid. Each c.c. of *N*/1 sodium hydroxide corresponds to 0.1634 (instead of 0.16339) gram of trichloroacetic acid.

(To be continued)

Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts.

ENGLAND AND WALES

Local Reports

Merthyr Tydfil.—At a meeting of the Merthyr Tydfil Insurance Committee on September 26, a report was received with reference to the testing of medicines. Three samples were taken and one showed a deficit of 3.5 per cent. in one ingredient and another had an excess of 3.36 per cent. in one ingredient, and a deficit of 0.66 per cent. in the second ingredient. As the discrepancies were not of a serious nature the Pharmaceutical Service Subcommittee recommended that no action be taken, but that the attention of the chemists concerned be drawn to the matter. In the case of a third sample there was a deficit of 75 per cent. in one of the ingredients, and of 1.15 per cent. in the second ingredient. In this case it was recommended that the chemist be severely censured for his negligence in dispensing the prescription. These recommendations were adopted.

Smrathwick.—At the meeting of the Pharmaceutical Service Subcommittee, held on October 1. Councillor E. Adams, J.P., was re-elected chairman. A list of gargles, lotions, and mixtures submitted by the committee's analyst as suitable for analysis in connection with the scheme for testing of drugs was considered, and the suggestions of the analyst were accepted, subject to the deletion of certain mixtures. The clerk was directed to arrange for prescriptions from the agreed list to be utilised in making tests, and was at the same time authorised to vary the prescriptions if at any time considered desirable. The Benefits Subcommittee, at their meeting on September 24, received the following statistical data relating to prescribing:—

Total No. of prescriptions issued in quarter ended June 30	34,632
Total cost of ingredients	£485 16s. 5d.
Total cost of dispensing fees	£639 19s. 9d.
Total cost	£1,125 16s. 2d.
Average cost of ingredients per prescription ..	3.4d.
Average cost of dispensing fee per prescription ..	4.4d.
Average total cost per prescription	7.8d.
Average cost per insured person on doctors' lists for quarter	8.7d.
Average No. of prescriptions per insured person ..	1.12

Payments to chemists for the July account amounted to £365 18s. 2d., and for August to £326 6s. 3d.; the expenditure from the drug fund for the period January 1 to September 17 amounted to £376 6s. 10d. (1924) and £2,900 15s. 2d. (1925).

SCOTLAND

Moray and Nairn.—At a meeting of the Moray and Nairn Insurance Committee, held in Elgin on October 5, the report of the Panel Committee regarding the alleged excessive and expensive prescribing on the part of Dr. J. A. MacArthur, Forres, during 1924, was adopted, and it was resolved to recover from Dr. MacArthur by deduction from his remuneration a sum of £20, and to pay the amount so recovered to the Drug Committee.

Drug Tariff.—Eye baths, ring pessaries, eye droppers and triangular bandages have been added to the Scottish Drug Tariff. The prices are 3d., 1s. 1½d. to 3s. 1½d. (according to size), 4d., and 5½d. respectively. The following are a few of the new prices in Appendix II, chargeable from September 1: Barbitone, 2s. 5½d. oz.; codeina, 7s. 8½d. dr.; ext. ergot liq., 6d. oz.; menthol, 7s. 8½d. oz.; morph. hydrochlor., 5s. 3d. dr.; ol. anisi, 6d. oz.; ol. menth. pip., 12s. 3d. oz.; ol. morrhua, 1s. 10d. pint; santolin, 13s. 4d. dr.; abs. cotton wool, 2s. 7d. lb.; abs. lint., 3s. 7d. lb.; boric lint, 2s. 7½d. lb.; oiled silk, yellow, 4s. 5½d. yard, 36 in. wide; G.P. tissue, 3s. yd., 36 in. wide; ice bags, rubber helmet, 13s. 4d.; check, circular, 8 in. diameter, 2s. 8d.; hypodermic syringes for insulin, 1 c.c., 3s. each.

THE City of London Guardians spent £252 on drugs during the past half-year.

Associations' Winter Session

London (N.).—The annual meeting of the North London Pharmaceutical Association was held on October 6, the President (Mr. J. Downing) in the chair. There was a good attendance. The chairman summarised the work of the Association during the past year, and paid a tribute to the officers. The treasurer (Mr. C. W. Matthews) presented the balance sheet, which showed a credit balance. Some discussion took place, and the meeting agreed to its acceptance. The election of officers resulted as follows:—*President*, Mr. J. T. Walters; *Vice-President*, Mr. R. H. L. Watson; *Treasurer*, Mr. C. W. Matthews; *Auditor*, Mr. H. T. Parker; *Secretary*, Mr. Herbert Skinner; *Assistant Secretary*, Mr. W. E. Watson. In district officers and committee there were only two changes, Mr. Parker looking after Wood Green and Mr. J. Downing being elected to the Committee. On the motion of the new President, a hearty vote of thanks was accorded to Mr. Downing for his two years' presidency. Subsequently a lantern lecture was given by Mr. H. F. Hutchison (Vinolia Co., Ltd.), on *Architecture as Illustrated by English Cathedrals*. The lecture was highly appreciated by the audience, and at the close a hearty vote of thanks was accorded to Mr. Hutchison, on the motion of the President.

Southend-on-Sea.—A meeting of the Southend-on-Sea Association of Pharmacists was held on October 8, when a good number of pharmacists met to discuss arrangements for the winter session, as well as other items of general interest. The President (Mr. G. Bruce) pointed out that, in calling a general meeting instead of a committee for the purpose of drawing up a programme for the winter, he thought it better for every member to have a word in the arrangements of the Association's activities, especially on the social side. Events are fixed for the second Thursday in each month.

Festivities

Liverpool Chemists' Dance

THE Liverpool Chemists' Association annual dance at the Midland Adelphi Hotel on October 7 proved very enjoyable, 160 ladies and gentlemen participating. The trade, wholesale and retail, was well represented. Mr. J. L. Hirst (President of the Society) and Mrs. Hirst received the guests. They also had the pleasure of greeting the Lord Mayor and Lady Mayoress (Alderman Thomas Dowd and Mrs. Dowd), who looked in after attending another function. A programme of over twenty dances was gone through to the strains of Mr. G. H. Francis Readdy's orchestra, Messrs. John Jones and Arthur Paley officiating as M.C.s. A four-course supper was served at the interval. The arrangements were well carried out by Mr. F. Wokes, secretary of the Association.

The St. Vincent Association

THE annual dinner of the St. Vincent Association took place at the Grosvenor Hotel, London, on October 8. The President (Mr. G. O. Parrott) was in the chair, and there was a gathering of over 100. The guests of the evening included Mr. L. Ferris Scott, Dr. Brackenbury, and Mr. W. P. Want. The toast of "The Association" was proposed by Mr. Ferris Scott. Mr. F. Ashley Rogers was responsible for the toast of "The Visitors," to which Dr. Brackenbury responded. Mr. H. B. Evenson proposed "The Chairman," a toast which was received with musical honours. Colonel J. C. B. Craster, Mr. John F. Murphy (Denver Chemical Manufacturing Co.), Mr. E. H. Newman (Savory & Moore, Ltd.), Mr. Henry Lewis, Mr. Wilfrid Daniel (Baiss Brothers, Ltd.), Mr. C. F. Pitt (C. J. Hewlett & Son, Ltd.), Mr. Cabell and Mr. Llewellyn Hughes (Fassett & Johnson) were also among those present. An excellent musical programme, under the direction of Mr. A. H. Millner, was much appreciated, especially the items rendered by Mr. Darrell Steel, one of the members of the Association.

Trade Report

42 Cannon Street, E.C.4, October 15.

THE slight improvement in business reported during October appears to be maintained, but at the same time there is no decided activity in the markets, apart from a few speculative products. Among crude drugs business in ipecacuanha is now a matter of negotiation. Cardamoms registered a further advance at a small auction. Senega and cascara are unchanged. Menthol is inactive and a trifle easier on spot. Maltese orange peel is unobtainable. Tragacanth is very firm, with a scarcity of firsts. Soy is cheaper owing to arrivals. In spices, pepper continues active at fluctuating prices; cloves are easier and ginger steady. Business in essential oils is well maintained, with Japanese dementholised peppermint still of outstanding interest, with all positions higher. American peppermint is also dearer, with orders very difficult to place. Cassia is in more spot demand and dearer; cajuput is selling freely. Ceylon citronella is pressed for sale and cheaper. Lemon and bergamot are in more inquiry. Among pharmaceutical chemicals the general tone continues steady, but business has fallen off and is patchy. Acetanilide and citric acid have a firmer tendency; amidopyrin, creosote (B.P.), resorcin, strychnine, potash permanganate are weaker. Among industrial chemicals business is fairly well maintained, orders being mostly for immediate delivery. British bichromates are lower; formaldehyde and potassium chlorate are firmer, sal ammoniac lower and arsenic weak. Zinc products continue to advance. In the fixed oil group business continues extremely quiet, most of the price changes being downwards. Palm oils are much cheaper; coconut, palm kernel, soya and linseed are easier. Other price changes include a dearer market for mercury; glucose is lower, shellac firmer, and turpentine cheaper.

Cablegram

NEW YORK, October 14.—Business is quiet. Peppermint oil in tins has advanced 50c. to \$16.50 per lb. Mexican sarsaparilla is dearer at 24c. per lb. Menthol is 25c. lower at \$10.00 per lb., and stramonium leaves have been reduced to 12c.

Crude Drugs etc.,

ALOE.—Business has been done in tale quale Curaçao at 54s. per cwt. c.i.f.

ANTIMONY.—The position remains firm, and crude is again dearer, over £62 being asked on the spot, while parcels afloat are held for about £58. Warehouse lots of Chinese regulus are quoted £67, while terms for early shipment are at £66 10s. at well above buyers' views. English refined is as before at £75 to £80.

BALSAM TOLU is quoted at 4s. 5d. per lb. c.i.f. for October-November shipment; spot value is 4s. 9d. to 5s. per lb.

BELLADONNA LEAVES offer at 80s. per cwt. on the spot, and for belladonna root 40s. c.i.f. is quoted to come forward.

CADMIUM.—American selling agents are still quoting terms at well above the figure of 1s. 9d. per lb., at which business has been doing for Australian metal, of which there seems to be plenty available on the spot.

CARAWAY SEED is cheaper, new crop Dutch offering for prompt shipment at 24s. 9d. c.i.f.

CARDAMOMS.—At auction, on October 8, 27 cases Ceylon-Mysore were offered and sold, at an advance of fully 2d. to 3d. per lb. over previous prices, comprising good bold pale 8s. 6d., bold medium pale 7s. 8d., lean bold and medium yellowish 6s. 11d., small and medium 5s. 11d. *Splits*, bold 7s. 3d., bold medium 6s. 7d., brown splits and pickings 6s. 2d. per lb. Privately good Bombay seed is quoted up to 8s. 9d. per lb.

CASCARA SAGRADA is unchanged, new peel to arrive offering at 55s. per cwt. c.i.f.

CELERY SEED.—French is quoted at 125s. per cwt. on the spot.

CHAMOMILES are steady but quiet. Good white Belgian offer at 160s. per cwt. to come forward, and fair white French are selling at from 145s. to 150s. on the spot.

CLOVES are easier with Zanzibar offering on the spot at 11d. to 11½d. per lb. as to quality. To arrive, October-December shipment has been sold at 10½d. to 10¾d. to 10¾d. per lb. c.i.f. Amboyna and Madagascar have been in better demand at higher rates. The statistics for the week ended October 10 show 325 bales were landed and 224 delivered, leaving a stock of 8,745, against 19,931 in 1924, and 21,223 in 1923. So far this year the landings have been 11,232, against 38,256 last year, and the deliveries 17,591, against 37,702 in 1924.

COD-LIVER OIL.—Owing to the weaker tendency of Norwegian kroner, the price in sterling is cheaper in this currency, viz., 160s. to 165s. per barrel c.i.f. London for finest non-freezing steam-refined quality.

ERGOT.—A fair business has been done on c.i.f. terms, comprising new crop Spanish for October shipment at from 2s. 8d. to 2s. 10½d. per lb. Nothing appears to be offered on the spot.

FENNEL SEED.—For good green French up to 31s. 6d. is quoted, and brownish at 28s. East Indian is 24s. 6d. per cwt.

GINGER is steady, with a fair demand both for African and Jamaica; the former is quoted at 61s., and the latter at 80s. to 120s. New crop washed rough Cochin is quoted at 75s. c.i.f., which indicates a larger crop, but this price does not appeal to buyers.

GLUCOSE is 9d. per cwt. lower, guaranteed water-white for October delivery offering at 23s. 6d. per cwt., November-March at 23s., and January-March at 22s. 6d., duty paid, landed terms.

IPECACUANHA remains very firm, with the price of Matto Grosso in first hands nominal at 12s., but sales are a matter of negotiation. Although the London stock, given below, shows 72 bales, it is estimated that first-hand stock is only about 20 bales; and it will be quite a month before new crop is due. According to the London drug statistics the landings during September were 8 packages Matto Grosso and the deliveries 44,

Higher	Firmer	Easier	Lower
Cardamoms	Acetanilide	Acid oils	Caraway seed
Erot	Cassia oil	Amidopyrin	Citronella oil
Lobelia	Formaldehyde	Betanaphthol	(Cey.)
Mercury	Potash chlorate	Carbolic acid	Glucose
Peppermint oil	Shellac	Castor oil	Naphthas
(Amer.)		Cryst.	
Peppermint oil		Cloves	Palm kernel oil
(Jp. dementh)		Coconut oil	Palm oils
Pepper	Steadier	Creosote, B.P.	Pot. permang.
Sp.-armit oil		Li. seed oil	Potash
Tragacanth		Lubricating	bichrom.
Zinc products	Barium	oils	Resorcin
	chloride	Menthol	Sal ammoniac
	Oxalic acid	Soya oil	Soda acetate
		Pyridine	Soda bichrom.
		Wood oil	Sov
			Turpentine

Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at 4 p.m. on Wednesday :—

Place	Method of Quoting	Par of Ex-change	October 7	October 14
Amsterdam	Fl. to £	12.107	12.04½—12.05	12.04½—12.04½
Berlin	M. to £	20.43	20.33—20.34	20.32—20.33
Brussels	Fr. to £	25.22½	108.15—108.20	106.45—106.55
Bulgaria	Lev. to £	25.22½	660—675	660—675
Calcutta	Per rup.	24½	18½d.—18½d.	18½d.—18½d.
Constantinople	Pst. to £	110	845—855	850—865
Greece	Dr. to £	25.22½	348—352	358—362
Hong Kong	T.L. \$	—	29d.—29½d.	29½d.—30½d.
Italy	Lire to £	25.22½	120½—120½	123½—123½
Kobe	Yen	24.58d.	20½d.—20½d.	20½d.—20½d.
Liabon	Escu.	53½	2½d.—2½d.	2½d.—2½d.
Madrid	Pts. to £	25.22½	33.66—33.68	33.75—33.77
Montreal	\$ to £	4.86½	4.83½—4.84½	4.83½—4.83½
New York	\$ to £	4.86½	4.84½—4.84½	4.84½—4.84½
Oslo	Kr. to £	18.159	24.40—24.45	23.80—23.85
Paris	Fr. to £	25.22½	104.70—104.80	107.70—107.80
Singapore	Per dol.	—	28½d.—28½d.	28½d.—28½d.
Switzerland	Fr. to £	25.22½	25.10½—25.11½	25.10—25.11
Vienna	Sh. to £	24.02	34.32—34.37	34.33—34.37
Warsaw	Zloty to £	25.22½	29—29½	29—29½

leaving a stock of 72, compared with 523 at the same period last year.

LOBELIA HERB is dearer at from 1s. 9d. to 1s. 10d. per lb. on the spot for parcels about landing.

MADE is firm, with fair Singapore offering at from 4s. 3d. to 4s. 6d. per lb., and fair to good West Indian at 4s. to 4s. 6d.

MAGNESIUM is in moderate demand with a steady tone. English makers are quoting small ingots or sticks at 3s. 9d. to 4s. 3d., while powder ranges from 5s. to 6s. per lb.

MENTHOL is quiet, with Kobayashi-Suzuki offering at 46s. per lb. on the spot. Forward prices are unchanged, September-October shipment offering at 38s., October-December at 36s. 6d., and January-March at 35s. c.i.f.

MERCURY.—The tendency improved distinctly in the latter part of last week, when it was reported that quite good lines were taken for export to India and China. Sellers then raised their terms to £13 10s. to £13 12s. 6d. per bottle, and the higher level was since fairly well held, although it is possible that this figure might have been shaded for fair-sized lots. So far as can be gathered, there have been no large offers on c.i.f. terms from the Continent, these still ranging from about £12 10s. to £12 15s. The home trade demand has been a little better after the recent conspicuous slackness of buying.

NUX VOMICA.—Madras is quoted at 12s. 6d. per cwt. c.i.f.

OPUM.—The following report has been received from Turkey.

CONSTANTINOPLE, October 6.—“During the period September 22 to date arrivals were as follows:—Druggists’, 710; ‘softs’, 112; and Malatia, 74 cases. Stocks amounted to:—Druggists’, 323; ‘softs’, 65; and Malatia, 44 cases. During the past fortnight the following sales took place:—165 cases druggists’ at £123-24; 40 cases ‘softs’ at £128½-29; and 30 cases Malatia at £122½-23, per oke. Orders for export are satisfactory and are being filled comparatively easily, although holders of stocks are losing money. In consequence of the decline in the rate of sterling, exchange prices in shillings are slightly firmer.”

ORANGE PEEL.—Spot supplies of Maltese thin cut are now exhausted.

PEPPER is dearer. During the interval fair black Singapore has touched 10½d., but closed easier at 10¼d. per lb. on the spot. The sales to arrive include November-January shipment at 10¼d., and January-March at 10½d. to 10¾d. c.i.f. Lampong has been sold at 10½d. spot, October-December at 10½d. to 10¾d., January-March at 11½d. to 11d. to 11½d. White Muntok pepper is dearer touching 1s. 3d. spot on Monday, but subsequently declining to 1s. 2¼d. To arrive, sales include October-December at 1s. 2¾d. to 1s. 1¾d., January-March at 1s. 2¾d. to 1s. 2½d. c.i.f. f.a.q. Singapore is 1s. 2½d. on spot.

PIMENTO is quiet at 5½d. per lb. on the spot. To arrive, September-October shipment is quoted at 45s., and October-November shipment at 44s. c.i.f.

RHUBARB.—The landings in London during September were 62 cases and the deliveries 60, leaving a stock of 383, against 597 last year.

RUBBER.—The market continues to advance, and is fully 2d. per lb. dearer on the week for spot. The forward positions have not appreciated in sympathy, but as the positions get closer a firmer tone is soon exhibited. Earlier in the week the market was full of rumours to the effect that an extra 20 per cent. instead of 10 per cent. would be permitted to be exported from the East on November 1; this created a sensation, and the January-March position declined on Monday 6d. per lb. at one time. Later in the day the rumour proved to be false, and values all round appreciated within 1½d. of the decline. There is steady buying for all spot rubber and importers are holding firm for full prices. Stocks were again lower on the week by 286 tons. Quotations (Wednesday, 5 p.m.):—No. 1 standard ribbed smoked sheet, spot, 4s. 0½d.; November, 3s. 10d.; December, 3s. 9d.; January-March, 3s. 3½d. per lb.

SARSAPARILLA.—The landings in London during September were 21 and the deliveries 14, leaving a stock of 351 bales, against 456 last year.

SEEDS.—There is no change in the seed market this week, the position remaining exceedingly dull, and

scarcely any inquiry. **ANISE**.—Spanish is 57s. 6d. to 60s.; Russian, 50s.; and Levant, 49s. per cwt. **CANARY SEED**.—Mazagan is 29s. 6d. per cwt. on the spot, and 28s. 6d. c.i.f.; good bold Spanish is offered at 35s. 6d. **CORIANDER SEED** is in very small demand, with sellers at 18s. 6d. on the spot for Morocco. **CUMIN SEED** is quiet. Maltese has sellers at 50s. spot and 47s. 6d. for Morocco. **DILL SEED** is 21s. 6d. per cwt. on the spot. **FENUGREEK SEED** is 16s. to 16s. 6d. for Morocco spot. **HEMP SEED**.—Manchurian is 17s. per cwt. **LINSEED** is quoted at 22s. for Mazagan and 21s. 9d. for Morocco on the spot. **MUSTARD SEED**.—English is 36s. per cwt. on the spot, but only limited supplies are available.

SENEGA remains unchanged at 2s. 8d. per lb. on the spot. The “Canadian Settler” from Montreal has brought 48 bales.

SENNA.—The landings in London during September amounted to 375 bales and the deliveries to 292, leaving a stock of 1,694, against 1,447 bales last year.

SHELLAC has been quiet, but firmer, sellers quoting usual standard orange TN quality at from 217s. 6d. to 222s. 6d. on the spot; fine second orange is 230s., super-fine 245s. to 280s., and AC cakey 220s. Futures are dearer, with buyers of October at 210s. December at 195s. (paid), and March at 190s. To arrive, TN for November-December shipment is firmer at 190s. c.i.f. Calcutta spot is Rs. 90.

SOY is easier owing to arrivals, good brands offering at 3s. 9d. per gallon, duty paid.

SQUILL.—Good white new crop is offered at 21s. 6d. per cwt. on the spot.

TRAGACANTH is very firm, and for firsts, which are very scarce, £32 10s. per cwt. is asked. The deliveries during September were heavy at 1,501 packages, and the landings 376, leaving a stock of 3,143, against 11,817 last year.

VALERIAN ROOT.—New crop Belgian for November delivery is offered at 85s. per cwt. c.i.f. Indian root can be had at 1s. per lb. on the spot, but is now in small compass.

Essential Oils

QUITE a good demand is reported this week. Japanese dementholised peppermint oil in all positions is dearer, and good sales have been made. Cajuput still continues to sell well. American peppermint is higher. Cassia oil is in demand on the spot and dearer. Ceylon citronella is pressed for sale and cheaper. Bergamot has met more inquiry, both on spot and to arrive. Lemon in better demand.

The following are the quantities and values of the essential oils (other than turpentine) imported into and re-exported from Great Britain during September, 1925, compared with the same month in 1923 and in 1924, also for the nine months ended September 30, 1925:—

		1923	1924	1925
Sept. imports (other	lb.	373,923	319,040	322,615
than turpentine)	value	£81,984	£94,886	£71,242
Jan.-Sept. imports do.	lb.	2,780,334	3,076,137	2,960,151
	value	£699,315	£858,583	£851,508
Sept. re-exports do.	lb.	71,349	71,116	95,998
	value	£26,081	£24,858	£41,261
Jan.-Sept. do. do.	lb.	621,176	791,152	782,447
	value	£264,483	£280,739	£298,775

ANISE (STAR).—Sales of “Red Star” have been made on the spot at 3s. 5d., and there is quite a seasonable demand.

BERGAMOT.—The production of the new season’s crop is said to be estimated at about a quarter less than normal, and business for forward shipment is reported to have been done at about 22s. 6d. per lb. c.i.f.; on the spot, best known brands are offering at 22s. 6d. per lb.

A Palermo advice of October 6 reports an easy market, with prices again lower.

BOIS DE ROSE.—During the first four months of 1925 exports of linaloe oil (bois de rose) from French Guiana amounted to 29,434 kilos.

CAJUPUT.—Further sales at 2s. 11d. per lb. are reported on the spot, and perhaps a further limited quantity may be had at the same figure. Market has a rising tendency.

CANANGA is firm, with little offering from the Continent at 11s. 6d. per lb. c.i.f.

CASSIA.—There is quite a demand for case lots on the spot, but very little is available, and higher prices are

asked, viz., 10s. 3d. to 10s. 6d. per lb., for 80 to 85 per cent. c.a.

CITRONELLA.—Ceylon on the spot is lower at 1s. 10½d. and 1s. 9½d. c.i.f. Java is quiet on the spot at 3s. 4d., and 3s. 1d. per lb. c.i.f.

CORIANDEE is quoted at 25s. per lb. for foreign.

CUBEB is offered at 19s. per lb. on the spot.

JUNIPER BERRY is quoted at 7s. 6d. per lb., and slightly less for quantity.

LEMON.—The new crop is reported to be probably short to the extent of 20 per cent. of the normal. Good brands are selling freely on the spot at from 5s. 3d. to 5s. 6d. per lb. The c.i.f. price is 5s. 9d. to 6s. 3d. per lb.

An advice from Palermo dated October 6 states that spot business is very limited, stocks small and exports of no great importance. On the other hand, new crop is in active inquiry, and although lemon growers still show great reluctance in making forward contracts, a good quantity of new crop has been contracted for. Market is very firm, with a strong undertone.

NUTMEG is quoted at from 6s. 6d. to 6s. 9d. per lb. for B.P. Expressed mace oil is 9s. in small lots.

ORANGE.—Sicilian sweet on the spot is offered at 9s. 6d. per lb., and to come forward at 9s. 11d. c.i.f. Sicilian bitter is 9s. 3d. spot and 9s. 9d. c.i.f. West Indian is quiet at 8s. 6d. both on spot and c.i.f.

Business, according to a Palermo advice dated October 6, is quiet, and as the pressing season is now near, rather more readiness to reduce prices is noted.

PEPPERMINT (AMERICAN).—Cables received from New York on Wednesday quote 71s. to 72s. per lb. c.i.f. for prompt shipment, and in one instance a bid of 70s. has been refused. The spot value is 72s. 6d., and for H.G.H. 87s. 6d. is quoted London terms for oil to arrive.

PEPPERMINT (JAPANESE).—The demand for dementholised Japanese seems to spring from everywhere in the trade, and prices are steadily mounting; first-hand prices seem out of the question, and many parcels have changed hands numerous times; positions beyond September shipment are now mostly in demand. On the spot, Kobayashi-Suzuki brands have been sold up to 27s. 6d. per lb., with 28s. asked, but supplies are very difficult to find. Forward positions are dearer, and the following prices have been paid:—August-September (ship declared), 25s.; August-September (ship not declared), 24s. 6d.; September-October, 22s. 9d.; October-December, 17s. 9d.; January-February (1926), 15s. 4½d.; January-March (1926), 15s.; and sellers' ideas on Wednesday were about 3d. to 6d. per lb. above these prices.

SPEARMINT to come forward is dearer at 60s. per lb. c.i.f.; spot lots have been selling at 50s. per lb.

VALERIAN.—Dutch distilled is 42s. 6d. per lb., and that from Japanese root 28s. per lb.

Among the arrivals in London during the period October 3 to 14 inclusive are the following: Ajowan (Br. Ind.), 1 cs.; bergamot (It.), 9 cs.; cajuput (Holl.), 10 cs.; camphor (Germ.), 10 cs.; caraway (Germ.), 4 cs.; cassia (Holl.), 1 cs.; (H. Kong), 5 cs.; citronella (Cey.), 17 dms., (Java) 8 dms., (Burma) 1 dm.; eucalyptus (Aust.), 235 cs., (Spain) 33 cs.; geranium (Algeria), 2 dms.; guaiacwood (Germ.), 1 cs.; lavender (Fr.), 5 dms.; lemon (It.), 2 cs. 4 x ¼ cs.; lime (Germ.), 1 cs., (B.W.I.) 17 cs.; pennyroyal (Sp.), 1 dm.; peppermint (It.), 18 cs., (Jp.) 40 cs., (U.S.) 18 cs.; rose (U.S.), 1 cs.; sandalwood (Germ.), 2 cs.; spearmint (U.S.), 2 cs.; various (Fr.) 28 cs., (Germ.) 1 cs.

Pharmaceutical Chemicals, etc.

ALTHOUGH there are one or two important changes recorded this week, the general tone continues steady, and some items are slightly firmer. Business has been patchy, and perhaps not quite so good as preceding weeks. Citric acid is firmer, while permanganate of potash is easier. Salicylates are healthy, and bromides appear to have settled down to Convention prices.

ACETANILIDE (B.P. crystals and powder) is firmer from dealers at from 1s. 7½d. to 1s. 8d. per lb. British makers quote quantity at less than the foregoing.

ANIDOPYRIN continues quiet, with dealers offering at 12s. 9d. per lb., being easier.

ASPIRIN has been more active and prices are well maintained at about 2s. 6d. to 2s. 7d., the cheaper price for quantities.

BARBITONE remains quiet, with dealers' prices irregular; spot at about 10s. per lb.

BENZALDEHYDE (0.03) is offering spot at about 2s. 9d. per lb., with not much moving.

BENZOIC ACID (B.P.).—British makers continue to quote B.P. synthetic from 2s. to 2s. 3d. per lb. Dealers offer small lots of Continental, practically free from chlorine, at 3s. 6d. per lb.

BENZONAPHTHOL holds at last week's higher prices of 3s. 5d. to 3s. 6d. per lb.

BETANAPHTHOL.—Resublimed is seldom in request; dealers quote close up to 3s. per lb.

BROMIDES.—There is nothing to add to our comments of last week. The market here continues very steady, and conditions on the Continent appear to have settled down. Spot prices, if anything, are rather firmer: ammonium, 2s. 5d. to 2s. 6d. per lb.; potassium, B.P. crystals and granular, 1s. 10½d. to 1s. 11d. per lb.; sodium, B.P. crystals and granular, 2s. 1½d. to 2s. 2d. per lb., all in one-cwt. lots, in kegs and cases.

CALCIUM LACTATE.—Dealers' prices are very steady at about 1s. 5d. per lb., and something more for small spot lots.

CHLORAL HYDRATE is moving quite well, with dealers' prices steady at 3s. 5d. to 3s. 6d. per lb. for duty-paid crystals, in jars.

CITRIC ACID (B.P. crystals).—Firmer conditions govern this market, and the movement appears to be due to a report that Continental makers have under consideration the formation of a Convention. This action has not yet been definitely taken, but the news of the proposal has been sufficient to move prices up from 1s. 3d. to 1s. 4d. per lb., less 5 per cent., spot. Business, however, is lacking.

CREOSOTE (B.P.) is easier at 2s. to 2s. 2d. per lb., as to quantity.

CREOSOTE CARBONATE attracts but little inquiry, with dealers quoting at about 6s. 6d. to 6s. 9d. per lb.

GUAIACOL CARBONATE shows no change on the week, with dealers offering at about 6s. 3d. to 6s. 6d. per lb.

HEXAMINE.—Although there is no great improvement in business, the tone is healthy, and prices are inclined to be firmer. Large lots may still be had at 2s. 3d. to 2s. 4½d. per lb., but most holders are asking 2s. 5d. for ordinary quantities.

HYDROQUINONE is steady, with fair business for the time of the year; dealers quote unchanged at 4s. 2d. to 4s. 4d. per lb.

LACTIC ACID (B.P.).—Dealers are still offering bulk quantities at 2s. 4d. per lb., and in bottles at 2s. 6d. per lb.; technical, 50 per cent. by weight, £42 per ton.

METHYL SALICYLATE.—There has been quite good business, and dealers' prices are up to 1s. 7d., in carboys; small lots, in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Prices quoted are irregular, ranging from 17s. to 18s. per lb.; market dull.

MILK SUGAR.—Finest Dutch B.P. is unchanged, as quoted by dealers at 74s. to 75s. per cwt.

PARA-FORMALDEHYDE is holding at the recently improved prices, and few offers on spot are under 1s. 10½d. per lb.

PARALDEHYDE continues steady, with 1s. 2d. to 1s. 4d. per lb. quoted, according to quantity and packing.

PHENACETIN.—Rather better prices are being mentioned here, but keen competition for actual business is still noticeable; quoted at about 4s. 4d. to 4s. 5d. per lb.

PHENAZONE is steady at 6s. 2d. to 6s. 4d. per lb., according to quantity, spot. The c.i.f. price works out at fully 6s. for quantities.

PHENOLPHTHALEIN.—While one or two comparatively cheap offers may still be on the market, most dealers are quoting at about 4s. 1d. and up to 4s. 4d. for small lots on the spot.

POTASSIUM PERMANGANATE (B.P.).—Now that the Continental Convention has broken up, this item has weakened and some dealers are reported to be offering quantities to come forward down to 7½d. to 7¾d. per lb., in drums spot, about 8d. per lb.

RESORCIN is cheaper at from 3s. 9d. to 4s. per lb.

SALICYLIC ACID (B.P.).—Business has been moderately good, with the market gradually picking up. Dealers' prices for quantities are up to 1s. 4d., and for small lots 1s. 4½d. per lb. is asked.

SALOL on quotation is rather dearer at about 3s. 5d. to 3s. 6d. per lb. The market has been quiet.

SODIUM BENZOATE (B.P.). from dealers in one-cwt. lots, is offered at about 1s. 11d. per lb.; some offers of quantities may be a shade cheaper.

SODIUM SALICYLATE.—Dealers' prices are well maintained and quite good business is reported: B.P. crystals, 2s. 0¾d. to 2s. 1d. per lb.; B.P. powder, 1s. 11½d. to 2s. per lb. British makers' prices are listed at 1s. 11d. to 2s. for powder and 2s. to 2s. 1d. for crystals, ex works.

SULPHONAL is steadier but still quiet, with quotations from 12s. per lb.

TANNIC ACID.—B.P. *levis* is now offered by dealers at 2s. 8½d., in one-cwt. cases, spot; market quiet.

TARTARIC ACID (B.P. crystals).—Dealers' prices for foreign continue at cheap rates, but fail to attract much good business: spot and forward, 11½d. to 11¾d. per lb., according to quantity.

THYMOL is holding quite steady at 13s. per lb. and upwards for 14-lb. tins of fine white B.P.

VANILLIN (100 per cent. from cloves) continues to move in small lots, with dealers' prices well held at 22s. to 22s. 6d. per lb.

STRYCHNINE.—Dealers quote pure crystals at 2s. and powder 1s. 11d. per oz.; hydrochlor. 1s. 8d., nitrate 1s. 9d., and sulphate 1s. 7d. per oz., in 100-oz. tins.

TERPENE HYDRATE is quoted at 1s. 9d. per lb.

THEOBROMINE.—The pure alkaloid is quoted at 11s. 3d., and sodium salicylate at 9s.

Industrial Chemicals, etc.

London, October 17.

BUSINESS continues fairly well up to the better standard of the last few weeks, but is mostly confined to smallish quantities for immediate requirements. Prices are steady. This week formaldehyde is again firmer. Arsenic remains dull and weak. Chlorate of potash is firmer. Sal ammoniac is cheaper.

ACETIC ACID continues in fair demand, with prices well maintained: 80 per cent. technical, £38; 80 per cent. pure, £39 per ton, in barrels; glacial, pharmaceutical, 99 to 100 per cent., £65 5s. per ton, in glass demijohns; glacial, in barrels, £55 per ton, all ex wharf London.

ACETONE continues firm, and dealers' prices are now well up to £75 per ton for B.G.S., in drums, ex wharf.

ALUM is not moving in any quantity: dealers offer lump, in casks, spot, at about £9 to £9 5s. per ton.

AMMONIA (ANHYDROUS) prices are steady for small spot lots at 1s. 3½d. to 1s. 4d. per lb. for 99.95 per cent., in loaned drums, carriage paid. Shipment prices for quantities considerably cheaper.

AMMONIUM CHLORIDE is moving fairly well on spot in small lots at about £25 5s. to £25 7s. 6d. per ton, for grey galvanising, in casks.

ARSENIC.—There is still no business worth mentioning and actual sales prices are a matter of negotiation. The Cornish mines quotation is in the region of £16 per ton, f.o.r. America, is still offering.

BARIUM CHLORIDE (98 to 100 per cent. prime white crystals) is steadier on a quiet market at about £9 per ton, spot. To arrive, in quantities slightly cheaper prices are quoted.

BARYTES is steady, with importers quoting at £3 5s. to £5 15s. per ton, c.i.f., according to quality and quantity.

BICHROMATES.—British makers have reduced their prices of potash and soda from October 12, and now quote potassium bichromate at 4½d. per lb. net, sodium bichromate at 3½d. net, delivered free U.K. or c.i.f. Ireland. Minimum five-ton contracts are subject to a special discount of 5 per cent. and falling clause. The prices of other chrome products are as follows: Anhydrous bichromate of soda, ¾d. per lb. dearer than ordinary bichromate; chromate of soda, ¼d. per lb. cheaper than bichromate; chromate of potash, 8d. per lb. net, delivered; bichromate of ammonia, 7½d. per lb. net, delivered; ground bichromate of potash, ½d. per lb. dearer than ordinary crystal or granular; oxide of chromium, 11½d. per lb. net, delivered, packages free; chromic acid, 1s. 0½d. per lb. net, delivered, in drums, packages free; chrometan crystals, 3½d. per lb. net, packages free; chrometan liquor, £18 per ton net, delivered.

BLEACHING POWDER.—British makers quote for home consumers only at about £9 10s. per ton, f.o.r. works. Dealers offer spot at about £9 7s. 6d., and c.i.f. at about £8 5s. per ton for 35 to 37 per cent. available chlorine.

COPPER SULPHATE.—The export demand continues moderate, but the trend of prices has remained undisturbed, the larger makers asking £24 10s. to £25, f.o.b., for casks, less 5 per cent., according to quantity, while orders can be placed elsewhere down to £24 5s.

CREAM OF TARTAR is steady on a quiet market, with Continental B.P. quality offered ex wharf London at about 76s. to 79s. per cwt., less 2½ per cent.

EPSOM SALT.—There has been more business and prices are steadier at about £5 per ton for commercial quality, in bags, spot.

FORMALDEHYDE continues firm, and further advances in prices are recorded, with supplies limited. Continental conditions are also firm: ex wharf, £40 10s. to £41 10s. per ton for 40 per cent. by volume.

GLAUBER'S SALT continues to be offered at about £3 10s. to £3 12s. 6d. per ton, in single bags, ex wharf.

LEAD PRODUCTS.—Dealers' prices, which move with metal prices, show no change. Market steady but quiet: red lead, £44; white dry, £45 to £45 10s.; ground in oil, £45 per ton, c.i.f. London.

LITHOPONE is very steady, with quite good business being done: 30 per cent. Continental red seal, £20 to £20 10s. per ton, ex casks.

OXALIC ACID shows signs of brightening up, and possibly hardening. Prices are certainly much steadier, and much old stock has been cleared: about 3½d. to 3¾d. per lb.

POTASH CAUSTIC is very steady at the Convention price of about £29 per ton, spot, for 88 to 92 per cent. solid, in drums; cheaper to come forward in quantities.

POTASSIUM CARBONATE remains steady, with moderate spot business: 90 to 92 per cent., £24 10s.; 96 to 98 per cent., £25 10s. to £26 per ton, in casks, ex wharf.

POTASSIUM CHLORATE.—A shortage of supplies is evident, and some Continental makers are sold well ahead. Prices, spot, are up to about 3¾d. to 4d. per lb.; shipment quotations seem limited.

POTASSIUM PERMANGANATE.—The position of commercial quality holds steady, with good business passing at 5½d. to 6d. per lb., in drums.

POTASSIUM PRUSSIAN is moving quite well, with prices held at 7½d. spot and 7¾d. forward for yellow.

SAL AMMONIAC is cheaper, with business limited: dog-tooth crystals, £32 to £32 10s.; medium, about £30; fine white crystals, £21 10s. per ton, in casks, ex wharf.

SALTCAKE for home trade from British makers is steady at £3 15s. per ton, in bulk, delivered.

SODA CRYSTALS (carbonate) from British makers for home consumers only is unchanged at £5 to £5 5s. per ton, in bags, ex rail depôt.

SODIUM ACETATE remains flat, and prices are cheaper at about £18 per ton, spot.

SODIUM BICARBONATE from British makers for home consumers only is unchanged at £10 10s. per ton, in bags, carriage paid.

SODIUM HYPOSULPHITE.—Business has been quieter, but dealers' prices are steady: photographic pea crystals, £13 10s. to £14 per ton, in one-cwt. kegs; commercial, lump, £9 to £9 5s. per ton, in casks, ex wharf. British makers quote £14 to £15 per ton for pure crystals, according to quantity, carriage paid to buyer's station.

SODIUM NITRATE is steady but quiet: 96 per cent., £12 5s.; refined, £12 10s. per ton, f.o.r. docks, London. Liverpool prices 2s. 6d. per ton less.

SODIUM NITRITE (100 per cent. basis) shows no change, with the London price at £22 5s. to £22 10s. per ton at docks. Market quiet.

SODIUM SULPHIDE is very quiet so far as dealers are concerned: 60 to 62 per cent., solid, £11 15s.; broken, £12 15s. per ton, in drums.

SULPHUR is steady, holders asking £5 10s. for American crude delivered Manchester, while quotations for refined stand at £9 12s. 6d. to £9 15s. for sublimed flowers and £7 15s. per ton for roll, delivered London warehouse.

ZINC PRODUCTS.—The tendency of metal has developed further great strength, partly due to the threat of famine conditions in consequence of the further heavy fall in the American stocks of well over 5,000 tons in the past month. Quotations for allied products have thus shown a continuous hardening tendency. Zinc ashes now stand at £15 15s. to £16 5s., based on 70 per cent. Zinc oxide vary from about £40 up to £49 a ton, ex warehouse. Zinc dust ranges from £46 to £47 10s.

COAL-TAR PRODUCTS, ETC.—Carbolic acid crystals are again cheaper, with still but little business. Pyridine is also easier; pitch is steadier; other products steady, with business limited. **ANILINE OIL** is offered by dealers at about 7d. per lb., in loaned drums, carriage paid; business fair. **ANILINE SALT** from British makers is unchanged at about 7d. per lb., naked, at works. **BETANAPHTHOL** is rather quieter and at the easier prices of 11½d. to 11¾d. per lb., carriage paid. **TOLUOL** continues steady and in fair demand: pure, 1s. 10d. to 2s.; 80's, about 1s. 8d. per gallon. **XYLOL**.—Pure, 3s. 3d.; commercial, 1s. 10d. to 2s. per gallon. Very little business.

CARBOLIC ACID.—A further reduction is recorded in crystals, bringing the price for quantities down to 4½d. per lb. f.o.b. The market is still flat. **CRESYLIC ACID** shows no change, with nothing much moving: 97 to 99 per cent., about 1s. 5d. to 1s. 6d. per gallon. **NAPHTHALENE** remains very quiet, with dealers offering flakes and balls at £13 and powder and crystals at £10 10s. to £11 per ton, ex wharf. **Pure METHYL ALCOHOL** is very steady, with small lots moving at about £47 per ton, in drums, ex wharf. **PYRIDINE** is rather cheaper again, with the market quiet: 19s. 6d. to 19s. 9d. per gallon. **PITCH**.—Better inquiry is being received, and prices are steady at about 41s. 6d. per ton, f.o.b. East Coast.

Fixed Oils, etc.

THROUGHOUT this market business has been decidedly quiet, and a number of items show reductions of a minor character. Palm oils are much easier. American turpentine and linseed oil (raw, naked) are also down in value, with

business slow. **ACID OILS.**—Market quiet, and some kinds are cheaper: coconut and palm kernel, 40s.; groundnut, 37s. 9d.; soya, 33s. 6d., all spot. **CASTOR** is easier: pharmaceutical, 58s.; first pressings, 53s.; second pressings, 51s. per cwt., in barrels in not less than one-ton lots. **COCONUT** is quiet and easier throughout: deodorised, spot, 52s.; Ceylon, 45s. c.i.f.; Cochín, 59s. c.i.f. **COTTON** is quiet, and prices show slight recovery: deodorised, 51s.; common edible, 49s.; soapmaking, 47s.; crude, about 42s. 6d. spot. **GROUNDNUT** is dull and prices unchanged: deodorised, spot, 56s.; crude Oriental, 51s. c.i.f. **PALM KERNEL** is very quiet and easier: deodorised, 43s. 6d.; crude, 44s. 6d. spot. **PALM.**—Business has been much quieter, and prices for all grades are much cheaper. Lagos, 40s.; softs, 39s. 6d.; mediums, 39s. 6d.; hards, 40s. 3d.; bleached, 42s. 6d. spot. **RAPE** is quiet: refined, 55s.; crude, 51s. spot. **SOYA** is easier on a dull market: deodorised, 49s.; crude, 44s. 6d. spot. **LINSEED** (raw, naked).—Business has been slower, and prices are somewhat cheaper for forward positions. On spot, 40s.; October, 38s. 10½d.; October-December, 38s. 10½d.; January-April, 38s. 10½d. Hull, on spot, 39s. 4½d.; October-December, 39s.; January-April, 39s.; boiled linseed oil, spot, 42s. **TURPENTINE.** After hardening to some extent late last week on firmer American cable advices, developed an easier tendency, due to dragging trade demand. It is reported that stocks across the Atlantic were again reduced lately consequent upon good deliveries into domestic consumption. Last week's deliveries here were very good, amounting to 1,957 barrels, this making an aggregate since January 1 of 72,935 barrels, compared with 76,985 barrels for the same period last year. The stocks were returned at 54,939 barrels, which, including 500 barrels afloat, made the London visible supply 55,439 barrels, against 39,985 barrels at the same date last year. On spot, 76s. 9d.; November-December, 77s. 9d.; January-April, 79s. 9d. **WOOD.**—Hankow in barrels on spot is dull and cheaper at 62s. per cwt.

LUBRICATING, MINERAL, BURNING OILS, ETC.—One or two items are slightly easier, but on the whole conditions remain steady, with business rather quiet. Lubricating oils are fairly steady at current rates. **BENZOL.**—Prices continue very steady and supplies limited. Crude 65's, 1s. 3d.; standard motor, 1s. 8d.; pure, 1s. 11d. per gallon, ex works, in tank wagons. **FUEL OIL.**—Market unchanged; quiet: 950 gravity, £4 2s. 6d.; 890 gravity, £4 17s. 6d. per ton, ex tank. **PARAFFIN WAX AND SCALE.**—Wax is very steady at 3½l. to 5d. per lb., according to melting point, in bags. Scale is firm at about 23s. per cwt., c.i.f. U.K. port. **PARAFFIN OILS.**—Prices are now steady. American standard white, 1s.; water white, 1s. 1d. per gallon, barrels free, Russian prime white kerosene, 6d. to 6½d. ex tank; 6½d. buyers' barrels filled free; and 10½d. per gallon, barrels free, ex wharf London. **WHITE OILS.**—Steadier at last week's cheaper rates, but still quiet. Special No. 1, £28; No. 1, £26 10s.; No. 2, £24 7s. 6d.; No. 3, half-white, £23; No. 4, half-white, £15 per ton, drums and barrels free, ex wharf London. **SOLVENT NAPHTHAS** are cheaper and market quieter. 90 to 160, about 1s. 4½d. per gallon; heavy, 90 to 190, steady, 1s. per gallon. **PETROLEUM JELLIES.**—No further change in prices, and market quiet: white to snow white, £55 to £59; amber and yellow, £19 10s. to £23; red vat, £19 5s.; dark stiff green, £15 per ton, ex wharf, barrels free. **LUBRICATING OILS.**—Spot conditions are rather easier this week with business quiet: pales, £11 to £23 7s. 6d.; rods, £13 5s. to £23 7s. 6d.; dark cylinders, £13 10s. to £24; filtered cylinders, £21 to £24, less 2½ per cent., ex wharf London. **SOLUBLE OILS AND CUTTING COMPOUNDS.** £20 to £28 10s. per ton, according to grade. No. 1 **RUSSIAN OIL**, cheaper at £17 15s. per ton, less 2½ per cent., ex wharf.

Madagascar Vanilla and Cloves

AN official report dealing with the foreign trade of Madagascar states that exports of vanilla in 1924 amounted to 293,192 kilos, valued at 89,457,600 francs, a decrease compared with the preceding years, e.g., 1920: 533,114 kilos, due to the unfavourable weather only, since there has been no reduction in the areas under cultivation. The same cause is also responsible for a drop in the exports of cloves from 757,082 kilos in 1923 to 561,403 kilos in 1924.

Moscow Chemical Market

REPORTS from Moscow state that the chemical market is very firm, there being a great scarcity of imported industrial chemicals. Tartaric acid is quoted at 2,240 roubles per ton, ex Leningrad. Calcined soda is practically unobtainable, chiefly in consequence of the recent large demands from the glass industry, representing additional requirements aggregating 1,500,000 pounds per annum. The syndicate has temporarily stopped the sale of calcined soda, reserving its small stock to supply only those firms which are in most urgent need of this product. The following

prices were quoted on the Moscow exchange in September, in roubles per ton, ex factory warehouse: Chlorinated lime (35 p.c.), 305; Russian borax, 1,220; copper sulphate, 370; caustic soda, 207.40; sodium bicarbonate, 140.30. The usual terms of settlement for heavy chemicals are now 25 to 50 per cent. of the amount in cash with order, and payment of the remainder in 60 to 75 days; foreign products are supplied only against cash.

Java Export Trade

THE following table gives the now published figures of the exports of cinchona and coca during the first seven months of the present year, compared with those during the corresponding period of 1924 (amounts in kilos):—

	Cinchona. Jan.-July		Coca. Jan.-July	
	1924	1925	1924	1925
Great Britain	376,000	381,000	—	—
Brit. India	51,000	59,000	—	—
Singapore	6,000	—	—	—
Holland	2,699,000	2,516,000	504,006	488,521
Japan	719,000	271,000	218,294	231,825
Germany	—	—	50,170	12,084
Other countries	—	15,000	—	—
Total	3,851,000	3,242,000	772,570	732,430

During the same period, exports of quinine totalled 110,421 kilos, compared with 110,890 kilos exported during January-July, 1924.

Japanese Peppermint Oil

DURING the present week the market for Japanese demethylised peppermint oil has, if anything, been much more animated than the previous week, and values have continued to advance. The possibility of American peppermint oil rising to still higher prices undoubtedly is helping to make the position more firm. The information given in last week's issue has fairly well covered the position, since when not only has there been renewed Continental demand, especially for near positions, but also further home trade demands. It is reported that importers have been covering, at any rate, a further portion of the "bear" sales they made. So far, no great number of declarations for near positions have been made, and the probability of cheaper spot oil during the next four or five weeks is very remote. When we went to press last week there were still new developments taking place, and since then a very large business has been done for shipments actually on the way. The October-December position is showing a large degree of firmness, and it seems quite probable that we shall yet see considerably higher prices for any oil due to be shipped from Japan this year. We understand that in response to cables sent out asking for quotations, nothing reasonable has come from first hands, and we have now to rely upon second hands for purchases. Moreover, Japanese shippers wish to sell menthol and oil combined. The position has revealed, in an extraordinary way, the large sale that there is for Japanese demethylised oil of peppermint.

French Oil of Turpentine Exports

THE following official figures give the exports of oil of turpentine from France during the first seven months of 1925:—

Sweden	114,100 kilos	= 553,000 francs
Norway	103,800 "	= 461,000 "
Great Britain	830,270 "	= 4,004,000 "
Germany	1,729,100 "	= 8,254,000 "
Holland	752,200 "	= 3,543,000 "
Belgium-Luxemburg	1,338,900 "	= 6,631,000 "
Switzerland	897,200 "	= 3,927,000 "
Italy	663,900 "	= 2,853,000 "
Algeria	93,200 "	= 407,000 "
Denmark	40,400 "	= 1,889,000 "
Other countries	249,700 "	= 1,026,070 "
Total	7,186,700 "	= 33,548,000 "

During the same period 32,574 tons of resin, turpentine, pitch and other indigenous resinous products were exported (to Great Britain: 4,654 tons), valued at 49,696,000 francs, and 423,300 kilos (to Great Britain: 41,600 kilos) of wood tar, valued at 494,000 francs. Imports included 95,200 kilos of oil of turpentine (from S.A.: 24,900; Spain: 70,100; Sweden, 25,000 kilos), value 380,070 francs, and 1,355,300 kilos of wood tar, value 1,535,000 francs. Sweden, with 522,400 kilos, being the chief source of supply, followed by U.S.A., 94,100 kilos; Great Britain, 172,200 kilos; Poland, 151,000 kilos.



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Transferring Apprentices

SIR,—Recent action, taken by the Pharmaceutical Society in regard to the Qualifying examination and the training of candidates, is likely to affect the type of candidate coming forward for training during the next few years. At this stage, during the transition from the old to the new conditions, it seems necessary to consider seriously the position of the country pharmacist, and especially whether he will be able to obtain apprentices when the new regulations come into force. Experience in the past fully justifies the assertion that the men who have entered the ranks of pharmacy from rural or semi-rural districts, or have received their training in districts outside the larger towns, have made no inconsiderable contribution to pharmaceutical knowledge, and have taken a large and important share in pharmaceutical politics. Many a man, who in later life has been an outstanding figure in the pharmaceutical world, and whose business career has been a conspicuous success, would ungrudgingly give the credit for a large measure of that success to the careful training, help and encouragement he received during an apprenticeship served in a small country town, from a master who took a serious view of his responsibilities in the training of apprentices. A list of Bell scholars and others who have gained distinction in pharmacy during the last fifty years, giving particulars of their early training, would probably astonish those who assume that the best material is supplied by large towns, where educational facilities are readily obtained. In the past, the candidate for apprenticeship in rural or semi-rural districts has not, as a general rule, received an education which approximated to that given in a secondary school. He has, in many cases, studied for, and passed, his Preliminary examination during the earlier years of his apprenticeship. He has not been able to obtain local classes in scientific subjects. But he has had advantages which largely counterbalanced these drawbacks, so that when, at a later stage, he migrated to a school of pharmacy, his attainments compared favourably with those of his fellow-students who were fortunate enough to have received a more generous school education. This type of student is hardly likely to be forthcoming under the suggested new educational scheme, with its insistence on a higher standard for the Preliminary examination, and a compulsory curriculum involving considerable financial outlay for the higher examinations. The natural result would appear to be that country pharmacists will have very great difficulty in obtaining apprentices who intend to proceed to the Qualifying examination. The situation might be met by some system of exchange, whereby town apprentices would spend part of their time in a country pharmacy, under the tuition of a responsible pharmacist, licensed for that purpose by the Pharmaceutical Society; and the country apprentice might, under such a scheme, be allowed to spend, in a similar manner, some part of his apprenticeship term in a town pharmacy. It seems desirable that some such scheme should be formulated and carried into effect, in order to keep up the supply of country candidates for pharmaceutical qualifications, and also to meet the need of adequate help for the single-handed pharmacist in rural areas.—Yours truly,

H. A. CHIPPERFIELD.

Boroughbridge.

Our Chosen Representatives

SIR,—Attempting a reply to "Xrayser II" (*C. & D.*, August 1, p. 163), I should say that one of the reasons why the interests of the chemists suffer so much at the hands of their chosen representatives is that most of the latter interest themselves in too many organisations. This takes up too much of the valuable time that could be devoted to pharmaceutical affairs only, and confounds the different policies with those relating to pure pharmacy, thus leaving the latter to be outlined by paid

officials for discussion. Some of the representatives are not business men, and, rather than confess their inability to grasp matters with business-like promptitude, will accept the paid officials' points of view without question. In other words, the control of pharmacy is in the hands of men who are either behind the times, or who visualise the pharmacist of the future governing the world of medicine (with a salary of £5 a week *plus* commission). They fail to realise that to-day the great majority of us are not pharmacists, but are vendors of patent medicines; take a walk through any of the main streets of our towns, and many chemists' windows show a selection of articles which by no stretch of imagination can be said to be a pharmacist's stock-in-trade. I say nothing of the flaring advertisements. And that can never be altered while we accept with open arms any questionable proprietary that can enter an already overstocked market. I say "accept with open arms," because that is what it amounts to while our chosen representatives seek election to the committee of the Proprietary Articles Trade Association. The work of the members of the Pharmaceutical Society's Council is the study of present-day conditions, not hanging on to the past, nor yet visualising the future for years ahead. Present-day pharmacy can provide enough earnest work for a long time; if the representatives hobnob with proprietors, how can the rank and file be expected to raise the status of the pharmacist? It is possible that the reason why so few clever diplomats come forward to help to uphold the honour of the profession is that they realise that it would take almost a revolution to change matters; the fact that only 50 per cent. of votes were recorded, at a time when the decision was momentous for us all, is enough to debar any man with the capabilities of a diplomat from taking an active part in pharmaceutical politics. Another factor which may explain the dearth of clever men is that pharmaceutical affairs have been so mismanaged these last few years that they are forsaking the pharmacy for the laboratory, which is not subject to the red-tape of officialdom. Many weak attempts have been made to make the dispensing of medicine a sphere for the chemist only, but the "boo" of the doctors has been sufficient to stop those efforts. The manner in which some doctors conduct their dispensaries leaves a lot to be desired—and rectified—but who would be able to conduct such a crusade? Not the Council! It is to their discredit that few pharmacies can give an apprentice the training he should receive; everything manufactured, bottled and packed ready for handing to the public like a slot machine—no wonder the men with brains are gradually forsaking pharmacy.

Truly yours,

AD REM (10/8).

Regulations not Enforced

SIR,—A perusal of the monograph on Cuba in the instalment of the Commercial Compendium in your issue of October 10 would lead one to think that the Cuban pharmacist is ruled by regulations from the beginning to the end of his career. But are these regulations enforced, or are they only on paper? I have had experience elsewhere abroad where similar laws were enacted, but many of them never came into operation, except perhaps when some unfortunate pharmacist had a disagreement with a local magnate and it was necessary to find a stick to beat him with. One regulation included a list of drugs which the pharmacist was supposed to stock (and the sale of anything outside this list was illegal); the enforcement of this would have meant the chemist spending half his day refusing custom—the other half as curator of a museum. Another item was the sale of proprietaries—this was forbidden except in the case of those approved by the Board of Health; as the Board never approved any, the regulation was inoperative. Again, a doctor was prohibited from carrying on a pharmacy or being interested in one; but as nearly all the doctors had a consulting room at the back of their favourite pharmacy, one could only conclude that this was another paper regulation. Medicines were supposed to be obtainable at any hour, but in the hot weather shops closed at midday for a three-hours' siesta. Similarly, the pharmacist was supposed to walk about with the key of the poison-cupboard in his pocket, and unlock and lock it up again each time a poison was required.

Faithfully yours,

CUBIST (12/10).

Legal Queries

M. T. (9/10).—The wording of the label you submit for compound syrup of hypophosphites conforms with the Labelling Order.

Emka (9/10).—The Household Ammonia label should state the strength of ammonia in the preparation, which, according to your formula, is approximately 23 per cent.

Elmo (10/10).—The wording for the mixture of which you send the formula may be: "This preparation contains tr. chlorof. et morph. B.P. '85. Poison 1/20 (sine ac. hydrocyan.)."

F. G. H. (3/10).—On and after January 1, 1926, your preparation must state on the label both the poisons it contains; there is no escape. The best way will be to state: "Among other ingredients, this preparation contains," etc.

W. S. (30/9).—All the authorities agree that extract of ergot mixed with other ingredients constitutes an "admixture," and on this basis it is classified in the *C. & D.* Retail Price List as "C" (i.e., in Part II of the Schedule of the Poisons and Pharmacy Act, 1908).

A. C. B. (9/10).—To conform to the requirements of the Labelling Order the label of the bronchial elixir should bear the words: "This preparation contains tr. chlorof. et morph. B.P. '85 1/18, and tr. camph. co. B.P. 1/14.4. Poison." The neuralgia mixture should be labelled: "This preparation contains tr. gelsem. B.P. 1/96. Poison."

J. C. (29/9).—When a lease expires, is it advisable for the tenant to apply to his landlord for a new one or should he do nothing until the landlord makes some move? [The answer to this question must depend upon the circumstances of the particular case. As a rule, however, we should think that it is preferable for the tenant to obtain a fresh lease or tenancy agreement if he wishes to remain in occupation of the premises. In any case, he cannot lose anything by approaching his landlord.]

P. B. (29/6).—The title "druggist" in connection with a retail business is restricted to persons qualified under the Pharmacy Act or to companies carrying on the business of a chemist and druggist in conformity with the Poisons and Pharmacy Act. A wholesale druggist supplies retailers without having an "open shop"—that is, a place to which the general public have access. As you carry on a retail shop, you cannot use the title "wholesale druggist" without risk of prosecution.

ZNO (5/10).—The term "dangerous" drugs, as now understood, means the drugs and preparations which come within the terms of the Dangerous Drugs Acts, 1920-1925, and only these require to be entered either direct or by a cross reference from the prescription or poisons book in the "dangerous" drugs register. Preparations containing any of the drugs below the limits given in the Acts need not be entered in the prescription-book if supplied under the National Health Insurance dispensing contract.

J. D. M. (12/10).—(1) The following are the declarations required on your labels:—*Cough mixture*: "This preparation contains tr. camph. co. B.P. Poison 1/12." *Tonic liver pills*: "Contain ext. nuc. vom. and ext. bellad. B.P., $\frac{1}{2}$ gr. in each. Poison." *Antibilious pills*: "If this is a one-grain pill: 'Contain 1/122 antim. tart., Poison, in each.' If a two-grain pill, 1/61, if a five-grain pill, 1/24." (2) The use of the titles "Back and Kidney Pills" and "Ladies' Pills" do not render the articles liable to medicine-stamp duty.

Spes (5/10) asks whether it is still possible to become a voluntary contributor under the National Health Insurance Acts and, if so, what procedure should be followed. [A person is eligible to become a voluntary contributor if, since the scheme came into operation, he has been in insurance for not less than two years. Application should be made to the Insurance Committee for the district. A voluntary contributor must pay the whole of the weekly contribution, the amount of which is 1s. 6d. for a man and 1s. 1d. for a woman.]

E. G. (4/9).—We advise chemists with branch businesses to give on the labels of statutory poisons a clear indication of the address where the poison has been obtained. There has been no law case that has settled this point, but a judge once indicated that this should be done. On the other hand, it may be argued that the head office of a multiple shop company would be able to trace the source of the poison, but as this might be a long process we advise chemists as stated above. The "open shop" is the place where the poison is sold, not the registered address of the company.

W. R. N. (24/9) has taken out a wine licence "off" at the ordinary rate. The licence is indorsed:—"Condition: For sales of medicated wines only." He wishes to know if he is bound by this, and can only sell medicated wines, or if he is at liberty to sell ordinary wines, such as port and sherry, under the licence. [The licence authorises the sale of ordinary wines, as there is really no such thing as a medicated wine licence; but if "W. R. N." does not comply with the condition that he is to confine his sales to medicated wines, the justices may refuse to renew the licence at the next annual licensing sessions.]

C. L. (7/10).—Squire's "Companion" gives syr. pruni virg. as containing from 0.0001 to 0.00037 per cent. of hydrocyanic acid, the tincture 0.004 per cent., and the bark 0.091 per cent. The infusion is not referred to, and probably most of the hydrocyanic acid would be dissipated in the process of manufacture. From this it is clear that a declaration must be made under the Labelling Order, as these preparations come within Part 2 of the Poison Schedule. The label should state: "Syr. pruni virg. B.P. (the proportion). Poison." A similar statement should be made for the tincture.

J. R. L. (24/9).—You read more into the concession in the by-laws than is contained therein. The apprentice will be entitled to registration as a student when he has passed the Preliminary, and from that time the 4,000 hours of the curriculum begin. If it can be proved that two years had been served prior to 1922 this would be recognised, but after that date all apprenticeship or hours of training was required to be subsequent to registration as a student. In cases of this kind an application should be made to the Council of the Pharmaceutical Society for a consideration of the special circumstances and the grant of a concession.

J. B. (29/9) received some goods "on sale or return," four years ago. The goods were unsaleable, and he instructed the suppliers to take them back. To this they did not reply. Three years later the suppliers sent an account for the price of the goods and "J. B." again told them to collect the goods; but without any result. Meantime, the goods are occupying valuable space; is there any way in which "J. B." can get rid of them without incurring any liability to the suppliers? [Only by returning the goods to the suppliers can "J. B." get rid of his responsibility either to pay for them or to take reasonable care of them so long as they remain in his custody. If he sells the goods or otherwise disposes of them he will have to pay for them.]

J. W. (5/10) resides and carries on business next door to a baker and confectioner. Recently, the baker installed a motor to run the machinery used in baking and the motor is in use at intervals during the day and for about twenty minutes between 10 p.m. and 11 p.m. The noise is very annoying; but the baker declines to take any notice of J. W.'s complaints. Is there any remedy? [If "J. W." can prove that the motor creates a "nuisance" in the legal sense of the word, he can have the noise stopped by applying to the Court for an injunction. It would, however, be necessary for "J. W." to show that the noise and vibration of the motor are so great as to interfere seriously with his enjoyment of his own premises. The disturbance must be more than merely annoying; it must be sufficient to make it practically impossible for "J. W." to use his premises for the purposes for which he occupies them. In deciding the case, the Court will take into account the nature and character of the district, and as J. W.'s premises are in a business street he is less likely to obtain an injunction than if he lived in a purely residential part of the town.]

M. W. C. (7/10).—The term "chlorodyne" used in the formula is insufficient disclosure. It must always have an indication of its source, and the only one officially recognised is B.P.C.; all other chlorodynes must have stated the proportion of poison. If "chlorodyne S.A.P." refers to tr. chlorof. et morph. B.P. '85 it would appear that "S.A.P." vitiates the disclosure. It would in that case be better to leave in the acid and use the B.P. '85, when it would be: "This preparation contains tr. chlorof. et morph. B.P. '85. Poison 1/40." We think it is not as well to state, "and is hereby labelled poison," as the impression given is that the cough elixir is a poison, when it is only necessary to give the impression that one of the ingredients is. You cannot claim proprietary rights in the elixir, as your label does, if you wish to sell it as a "known, admitted and approved" remedy.

R. G. S. (10/10) became tenant of a new lock-up shop at the beginning of the year. As the walls were damp at that time, they were left bare; but the landlord gave a written promise to distemper them as soon as they dried. This work has never been done. Is "R. G. S." entitled to withhold payment of rent until the landlord has distempered the walls or has he any other remedy? [Even if the agreement by the landlord to distemper the walls is enforceable, "R. G. S." has no legal right to withhold payment of rent. Strictly speaking, "R. G. S.'s" only remedy is to sue the landlord for damages for his failure to carry out his contract; but, in practice, the better plan will be for "R. G. S." to have the distemping done himself and apply to his landlord for payment of the cost. "R. G. S." should, however, first give his landlord notice stating that unless the work is done by a specified date he will do it himself. If the landlord still refuses to pay for the distemping "R. G. S." must sue for the amount unless he cares to risk the unorthodox method of deducting the amount from the rent. In the latter event, if he is sued for the rent deducted he can counterclaim the same amount as damages for breach of contract.]

A. J. J. (31/8).—The law relating to poisons sold by a manufacturer or wholesaler to another wholesaler is unchanged. The change in the law which comes into force on January 1, 1926, refers to the statement to be made on the label of the name of the poison and the proportion of poison in a preparation. In the case of the latter it must obviously be labelled at its source, since this may be the only place where the information can be obtained. That is, in future, to simplify a transaction, the maker of a preparation will state on the label the proportion of the poison it contains. The name of the poison is the name by which it is known. A coined name which covers up the true name of the poison could not be used without giving the name of the poison, or it would come under the definition of a preparation and require the proportion to be stated. The recent legislation provided means for a chemist to sell wholesale to a professional man in order to remedy a defect created by the Dangerous Drugs Act, 1920. A wholesale sale apart from this has never been defined, but the usual plan is a sale for use on the large scale or to sell again in divided quantities. If a member of the public comes into business premises and can obtain the poison, then it becomes a retail transaction. Sales by export are labelled "Poison" with the name of the poison. There is no distinction here between exporters and goods sold for export. A wholesale transaction made by a chemist keeping "open shop" is subject to the new Labelling Order. Wholesale druggists and manufacturers, dealing between themselves or with chemists, are free from that obligation, except when the wholesale druggist or manufacturer puts up articles ready for sale by the chemist. Medical men, dentists and veterinary surgeons may buy Part I poisons subject to a written, signed order or on signing the poisons book. This is not a wholesale transaction, but a defined method of sale for those who use the poisons in their profession. A sale of a preparation containing a poison to these professions would come within the Labelling Order, as the change made in the law for their benefit was based on the conception that they are truly retail purchasers.

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

J. W. C. (22/9).—The ingredients that are used to give "backbone" to solid eau de Cologne are shellac and sodium silicate. These are only required in small amounts.

A. H. R. (22/9).—WINE SPICE.—This is used chiefly for mulled wine, but sometimes added to beer and punch. A formula we have is:—

Vanillin extract ...	3 dr.
Cardamom extract ...	3 dr.
Pimento extract ...	6 dr.
Clove extract ...	6 dr.
Cinnamon extract ...	12 dr.

The extracts referred to are 1 in 10 solutions of the active principles in spirit, and we think that with essence of vanillin and essential oils you would be able to produce a passable essence. It should be dark in colour, that being why the extracts are used.

E. B. (25/9).—ETCHING CREAM used for marking glass consists of equal parts of ammonium fluoride and barium sulphate, made into a cream with hydrofluoric acid. This is applied to the glass by means of a rubber stamp, allowed to remain on twelve hours and then washed off.

Goggles (28/9).—OPTICAL INSURANCE BENEFIT.—All opticians whose names are on the register of the Joint Council of Qualified Opticians can give optical service under the National Insurance Acts. Any person who has passed the examinations of the Spectacle Makers' Company or the British Optical Association can be placed on the Register on request. The actual sight-tester must be qualified.

Sodium (31/9).—HAND SOAP.—The soap base for a hand soap containing 33 per cent. of terebene and 55 per cent. of silver sand should be a soft soap or potash soap. Accordingly replace the caustic soda with potassium hydroxide which you have used for saponifying coconut oil. Alternatively sapo kalinus (linseed oil soap) can be filled with grit and forms an efficient grease solvent.

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," October 15, 1875

American Pharmaceutical Association

(From a special report of the annual meeting.)

A paper by J. F. Hancock, of Baltimore, was read in answer to the following query: "Chlorodyne is frequently prescribed by physicians, and seems to be a useful preparation in many cases; give a formula for it which would be suitable for introduction into the U.S. Pharmacopœia." The writer recommended the formula published by Squire, and urged the use of the name Liquor Chloroform Compound, to distinguish it from the nostrums that flood the market.

Mr. Maisch answered to the query: "Is *artanthe elongata* really the true source of the matico plant; if not, what plant furnishes the drug?" The writer stated that the term matico was applied in South America to a number of different plants which possessed vulnerary properties; but he believed the above plant yielded the bulk of the matico employed in commerce.

In answer to the query, "Rhubarb has of late been much damaged by insect pests; does the rhubarb as shipped in China contain the insect, or does it become infested after arrival in Europe and America?" Mr. William Saunders, of London, Canada, stated that he reared specimens of the insect through the different stages. He had supposed it was the moth common in drug stores, but found it to be a different species, new to him. The query was continued.

A paper in answer to the following query was read by Professor E. Scheffer: "Is pancreatin converted into pepton when it is digested with acidulated pepsin?" The writer was enabled by his experiments to assert positively that pancreatin when brought into the stomach became destroyed, and that it therefore could have neither physiological nor therapeutic effect when administered internally.



[Commenced C. & D., July 5, 1924]

Customs Duties.—The origin of Customs duties is unknown. Probably they were at first in the nature of a premium of insurance paid to the king, by merchants importing or exporting goods, to secure them against pillage by local freebooters at the ports. After having been at first a matter of arbitrary levy or bargaining, a certain scale soon became customary for the articles commonly imported, such as wine and cloth, and for those usually exported, such as wool, woollens and leather. Hence the name "customs." But in addition to the customary duties, the arbitrary exactions of the king's officers at the ports soon grew so oppressive as to call for a remedy, and by the 41st Article of Magna Carta it was provided that all merchants should have liberty to come into England, to remain in England, and to go out of England for the purpose of buying and selling, subject only to the payment of the ancient and just Customs duties. Sixty years later, in 1275, in the first Parliament of Edward I, certain definite rates were at the request of the merchants fixed for goods exported, the customary toll, known as tunnage of one cask from a cargo of ten casks of wine and two from a cargo of twenty of more, being left untouched. Various subsequent attempts made by the first three Edwards, usually with the consent of the merchants, to increase the duties were objected to by Parliament, until finally a statute was passed in 1371 declaring that no grants on wool should be made without the consent of Parliament. This continued generally to be recognised as the law until the matter was raised under James I. That king, having imposed by proclamation a duty on imported currants, obtained a judgment of the Courts in 1606 that he was entitled to do so on the ground that customs, being connected with foreign affairs, were under the absolute control of the king. This judgment led to the imposition by proclamation of new and heavy duties on various articles, notwithstanding protests of the House of Commons. The question of legality was finally settled by the Bill of Rights in 1689, which declared that the levying of money by pretence of prerogative without grant of Parliament is illegal. The modern system of Customs duties commenced with the statute of 1660, which with its Book of Rates established the Old Subsidy. To this was added the system of duties imposed during the reign of William III, and known as the New Duty, with a great variety of duties, many imposed for political reasons during the reigns of the first three Georges, until Pitt in 1787 passed a consolidating statute on lines advocated by Adam Smith in his "Wealth of Nations." The number of articles subjected to a tariff still continued to grow, until soon after the opening of the nineteenth century the Free Trade idea gained favour with politicians, and a movement to remove imports, especially imports which were the raw materials for home industries, from the list of taxed articles got the support of Peel in 1842, and was further fostered and applied by Gladstone. In the result, the adoption of the maxim that Customs duties, like other taxes, should be imposed only for revenue purposes became general with Chancellors of the Exchequer. Of late years, and especially since the outbreak of the war (1914), other considerations have come up to influence our fiscal policy, and Customs duties have been imposed or modified with a view of supporting systems of protection or of Imperial preference. The total revenue from Customs in the year ended March 31, 1924, was over £120,000,000, of which the chief items were tobacco £51,980,378, sugar £37,126,709, and tea £10,730,855.

BOARD OF CUSTOMS AND EXCISE.—Customs duties are under the control and management of the Commissioners of Customs and Excise, a body appointed by letters

patent, who perform their duties subject to the direction and control of the Treasury. When goods are liable to a Customs duty they can be imported into the Kingdom only at such place and subject to such regulations as the Commissioners may prescribe. Upon the arrival in port of a vessel from beyond seas the master is required within twenty-four hours of the arrival and before breaking bulk to give particulars of the cargo on a prescribed form to the Customs officer in charge; and if the cargo includes dutiable goods the merchant or his agent must make entry of the goods within fourteen days of the arrival and before unshipping them. If the merchant or his agent cannot for any reason make a perfect entry, he may make a provisional one, known as a bill of sight, to be followed by a perfect entry within three days after the landing. All entries have to be made in duplicate on the prescribed form. The importer must then within such time, not less than fourteen days, as the Commissioners allow, land the goods, which thereupon are required to be produced to the proper officer of Customs for the purpose of examination and account. After the complete entry has been made, and the official account of the goods taken, the importer may pay the duty which is found to be due on them, and clear them for home consumption. The rate at which the duty is chargeable is that which was in force at the time the entry of the goods was delivered. If the importer is not prepared to clear the goods, he may deposit them in an approved duty-free warehouse, and payment of the duty is then postponed until they are delivered from the warehouse for home consumption; but he continues to be liable for the duty even after they are warehoused, although this liability would cease if they were exported under the regulations or were so used in bond as to cease to be dutiable—e.g., imported spirits methylated in bond. If restricted goods, such as extracts or essences of coffee, chicory, tea, saccharin, spirits and tobacco are found in the Kingdom and seized, it rests with the person claiming the goods to prove that the proper duties have been paid on them. When goods which have been warehoused are subsequently delivered for home consumption, the rate of duty applicable is that which is in force at the time they are actually removed from the warehouse. If a sale of goods takes place in warehouse and, prior to delivery, an increase in the rate of duty takes place, the seller is entitled, in the absence of an agreement to the contrary to add to the contract price a sum equal to whatever he paid by way of increase of duty. Similarly, if the duty has been reduced or repealed, the buyer is entitled to deduct from the contract price a sum equal to the amount of the decrease. When goods imported are composed of any article liable to Customs duty as a part or ingredient thereof they are chargeable on the full duty payable on such article. And where any manufactured or prepared goods ("composite goods") contain, as one of their parts or ingredients, any article liable to a duty of Customs, duty is charged in respect of such quantity of the article as the Treasury decides to have been used in the manufacture or preparation of the goods. If the goods contain more than one such article they are charged in a similar manner on each article liable to duty at the rate of duty respectively applicable thereto. In the case of an article liable to an *ad valorem* duty, the value of the article for the purposes of the duty is taken to be the price which an importer would give for the article if it were delivered, freight and insurance paid, in bond at the port of importation. The invoices produced by the importer are usually accepted as proof of the value, to which the freight and insurance have to be added for assessment of the duty.

The modern change in the national fiscal policy is exemplified in Customs tariffs imposed by the safeguarding of Industries Act, 1921 (q.v.), under which a Customs *ad valorem* duty of 33½ per cent. was imposed on a number of foreign products, the manufacture of which in this country it was thought desirable to foster. Thus, duty is levied on all synthetic organic chemicals (other than synthetic organic dyestuffs and colours), analytical reagents and other fine chemicals (except sulphate of quinine of vegetable origin), and chemicals manufactured by fermentative processes. If an article, a portion of which only is dutiable, is imported, the value of the

The C.&D. Commercial Compendium

dutiable part is taken as if that part were imported by itself and in a condition ready for use in the compound article. The invoices should show the separate values of the dutiable parts of compound articles. If any other Customs duties are charged on the article, only the amount by which the S. I. duty exceeds the other duties is levied. Another anomalous Customs levy resulting from the war was the special duty charged on imported German goods under the German (Reparation) Recovery Act, 1921. As in April 1925 the collection of this levy was entrusted to the German Government, who remit the proceeds to this country, it can no longer be properly regarded as a Customs duty.

BONDED WAREHOUSES.—The principle of bonding as opposed to the Free Port plan is well known, and special forms necessary to cover the warehousing, transfer and clearance of goods can be obtained; yet some interesting points arise. The Budget statement is usually introduced into Parliament in April, and alterations in Customs duty take effect, if confirmed, on the day following the Budget statement. Such changes are not announced until after 5 p.m., by which time Custom houses and bonded warehouses are closed. Of course, when a Budget is imminent, there is much speculation as to possible changes. When a rise in duty is expected, importers naturally wish to save money by clearing large quantities of goods just before the Budget statement. The revenue authorities have power to prevent such a proceeding, which they term "forestalling," by refusing at any time within three months of the forthcoming Budget to "allow delivery of goods or commodities for home use from ship's side or from a warehouse on payment of duty, in any case where deliverers are demanded of amounts exceeding the deliveries which appear to the Commissioners of Customs and Excise to be reasonable deliveries in the circumstances."

BONDING OF GOODS LIABLE TO KEY INDUSTRY DUTY.—In December 1924 Customs introduced a system of bonding of such goods, and importers, instead of having to pay the 33½ per cent. duty immediately the goods are landed can now put them in bond and pay duty as and when they are taken out for sale. Goods in bond can also be re-exported, and this has done away with the old system of having to apply for "drawbacks" of duty paid. We gave full particulars of bonding regulations in *THE CHEMIST AND DRUGGIST* (October 11, p. 531).

COMPOSITE GOODS.—The Customs Tariffs Act, 1876, provides that goods consisting partly of a dutiable commodity shall pay the full duty on such ingredient. Hence, any mixture containing saccharin is charged as saccharin, unless in the case of mixtures such as preserved fruit, etc., the proportion of saccharin does not exceed one per cent. Section 7 of the Finance Act, 1901, qualifies to a degree the 1876 ruling just quoted. It enacts that, when a commodity contains as a part or ingredient any dutiable article, duty is payable in respect of such quantity of the article as appears to the satisfaction of the Treasury to be used in the preparation of the goods. If a commodity contains more than one dutiable ingredient, each shall similarly pay its due proportion, unless the Treasury decide that the procedure under the Customs Tariff Act, 1876, is necessary to protect the revenue. These two enactments provide the key to the simplification of apparent absurdities in import procedure. Goods of the following classes are usually dealt with under the "1901 clause":—(a) Toilet soap (hard), containing spirit, (b) spirit varnish, (c) perfumery, cosmetics, toilet requisites, and other manufactured articles containing spirits (except perfumed spirits, essential oils and soap), (d) articles containing not more than one per cent. of saccharin used as a preservative, (e) preparations of cocoa, etc., (f) other preparations made with added sugar or other sweetening matter (not specially rated). Duty is assessed on such goods after tests in the Customs laboratory, though in urgent cases delivery is allowed on deposit of a sum sufficient to cover the duty at the highest rate. When goods are found to contain, say, a fairly constant

percentage of sugar, a specific duty is fixed. Condensed milk, sweetened, tamarinds, soy, etc., are specially rated. Similarly, importers of standard articles containing dutiable ingredients can submit samples and ask that a specific duty be fixed. A Board's order will then be issued.

EFFECT ON CONTRACTS.—Section 10 of 1 Edw. VII (1901), c. 7, enacts that:—

1. Where any new customs import duty or new excise duty is imposed, or where any customs import duty or excise duty is increased, and any goods in respect of which the duty is payable are delivered after the day on which the new or increased duty takes effect in pursuance of a contract made before that day, the seller of the goods may, in the absence of agreement to the contrary, recover, as an addition to the contract price, a sum equal to any amount paid by him in respect of the goods on account of the new duty or the increase of duty, as the case may be.

2. Where any customs import duty or excise duty is repealed or decreased, and any goods affected by the duty are delivered after the day on which the duty ceases or the decrease in the duty takes effect in pursuance of a contract made before that day, the purchaser of the goods, in the absence of agreement to the contrary, may, if the seller of the goods has had in respect of those goods the benefit of the repeal or decrease of the duty, deduct from the contract price a sum equal to the amount of the duty or decrease of duty, as the case may be.

3. Where any addition to or deduction from the contract price may be made under this section on account of any new or repealed duty, such sum as may be agreed upon or in default of agreement determined by the Commissioners of Customs in the case of a customs duty, and by the Commissioners of Inland Revenue in the case of an excise duty, as representing in the case of a new duty any new expenses incurred, and in the case of a repealed duty any expenses saved, may be included in the addition to or deduction from the contract price, and may be recovered or deducted accordingly.

GERMAN (REPARATION) RECOVERY ACT, 1921.—This Act, which came into force on April 1, 1921, provided for the payment to the British Customs of a proportion of the purchase price of German goods, the official receipt for the amount so paid operating *pro tanto* as a good discharge to the importer against the person to whom the purchase price of the goods is due. At the outset the proportion of the purchase price to be thus paid to the Customs was 50 per cent., and the Act applied not only to goods exported directly from Germany to this country, but to all goods of substantially German origin. After the acceptance by the German Government of the Schedule of Payments prescribed by the Reparations Commission, the rate of the levy was reduced on May 13, 1921, to 26 per cent. On May 27, 1921, the application of the Act was restricted by Board of Trade Order made under Section 1 (5) to goods first consigned from Germany to the United Kingdom. In November 1923 the German Government ceased to fulfil its obligations to the exporters, and British importers were obliged to pay, in addition to the full amount of the value of the goods, an extra 26 per cent. to the Customs. This position continued until February 26, 1924, when the amount of the levy was reduced to 5 per cent., the German Government agreeing to compensate German exporters to that extent. On September 9, 1924, the amount of the levy was again raised to 26 per cent., but on April 3, 1925, a fresh arrangement was concluded whereby the German exporter now pays to the German Government an amount of sterling equivalent to 26 per cent. of the value of the goods. The new arrangement was fully described in the *C. & D.* of April 11 (p. 544), and still holds good. The levy had yielded £18,000,000 by way of Reparation payments between March 21, 1921, and the time of the deadlock at the end of 1923, and up to the end of March 1925, £25,000,000.

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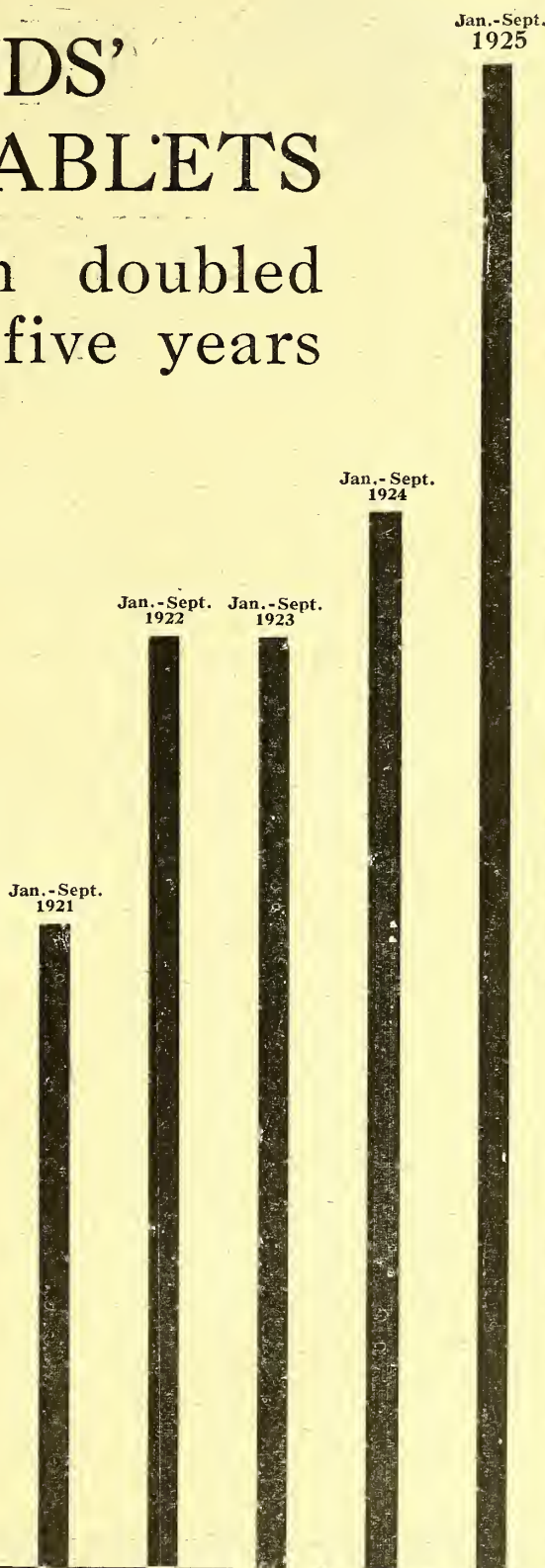
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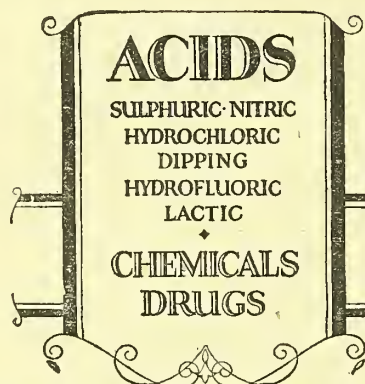
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Liquorice Juice

The Chemist's Brand

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*Solazzi Juice is
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of the condensed extract of
finest Calabrian Liquorice Root,
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Podophyllum Resin B.P.

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A National Microbe Campaign for 1925

YOU are asked to get into touch with your wholesaler at once with regard to the supply of hyperol. The hyperol tablet is 33% Hydrogen peroxide in *solid* form, and though readily soluble in water, is absolutely stable and free from mineral acids of any kind. It thus forms an antiseptic, not merely adequate from the bactericidal viewpoint, but perfect in its therapeutic action. ✖ ✖ ✖ ✖ ✖

The solution of irritant-free Hydrogen peroxide formed by the dissolving of a hyperol tablet in water possesses none of the characteristic tastes or odours of caustic antiseptics, and is absolutely safe in use. But its vigorous oxydising action is one of our greatest weapons in the battle with the microbe of disease. ✖ ✖ ✖ ✖ ✖

The hyperol solution may be used as a lotion, gargle, mouth wash, nasal douche or disinfectant. Apart from its ordinary medical importance, you will have seen that it provides ample home treatment for influenza and cold prevention, sore throat, catarrh, pyorrhœa prevention, poisoned cuts,

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ACID PYROPHOSPHATE of SODIUM

Quality in all respects equal to Cream of Tartar,
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Patented in U.S. and Foreign Countries.

Ergoapiol (Smith) is now identified by the letters M.H.S. in the gelatin on the inside of each capsule. These letters are not visible from the outside, but they are plainly discernible in the gelatin when the capsule is cut in half.

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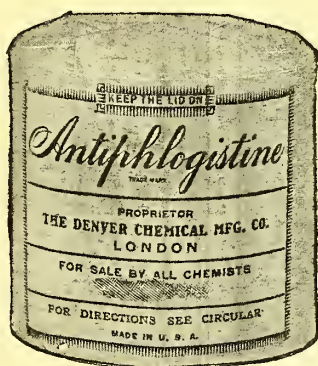


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(1)

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Write for quotation
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To Manufacturers **COLONIAL TRADE DEVELOPMENT**

Australasia and South Africa

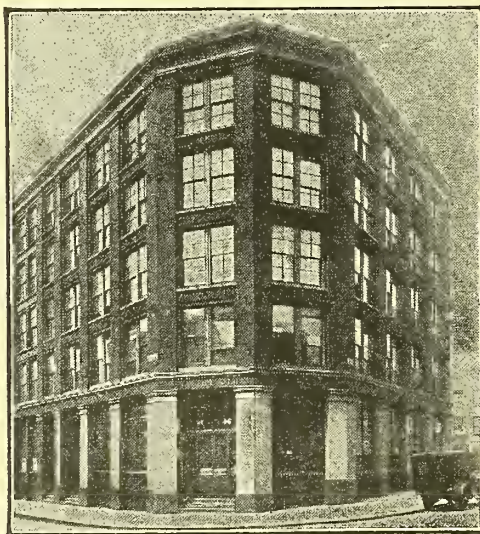
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Nerve Nourishment*

These are a few of
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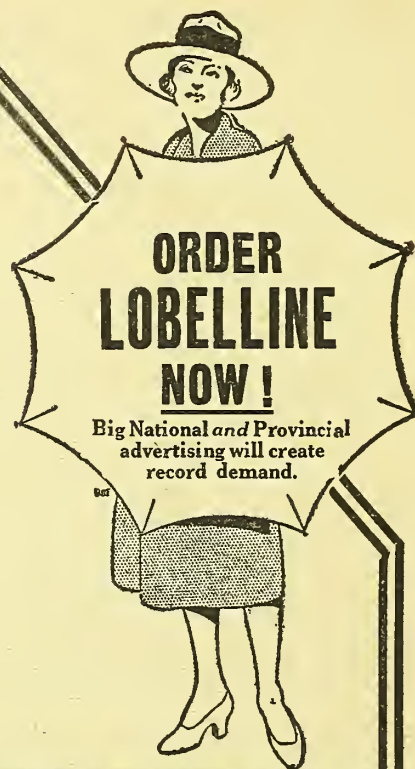
"DAILY EXPRESS." "DAILY NEWS." "JOHN BULL."
"EMPIRE NEWS." "YORKSHIRE EVENING NEWS."
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THE NEW COMPRESSED LOZENGE
"PAREGO-PINES"

14 lb. 1/4. 56 lbs. 1/3. 1 cwt. 1/2.
2 oz. Cartons & Showcard with 14 lbs. supplied Free.

ASPIRIN, CASCARA, etc., at Reduced Rates

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MEDICINAL SNUFF. ABSOLUTELY THE
FINEST REMEDY FOR CATARRH & COLD
IN THE HEAD.

THE SOLID
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"RUBBO" IS SIMPLY
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33 1/3% Clear Profit.

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Watch your **"RUBBO"** Stocks. Showcards and Handbills on application.



Let Dr Grip
open the door
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Behind "GRIPS"
FIRST-AID PAS-
TILLES is the
prestige of a 25
years' reputation.

Distributing Agents to the
Wholesale and Retail Chemists'
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His genial personality dominates the newspapers and the hoardings. Day after day he is persuading millions to try his famous pastilles, and, judging by the record sales, he is doing his job well.

Much of this increased demand is certain to find its way to your shop. Feature "GRIPS" in your windows and on your counters, and let the public see that you *do* stock this popular sweetmeat.

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PASTILLES**

Made by LIGHTBOWNS of ACCRINGTON.

Pharmacists will best serve their interests by selling the
FINEST PREPARATION OF ITS KIND MADE

Its
Composition
and
Efficacy
Guaranteed
by
'FELLOWS'



Profits
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PRICE: Large Bottle, 6/-; Small Bottle, 3/6.

FELLOWS MEDICAL MAN'F'G CO., INC., NEW YORK, N.Y., U.S.A.

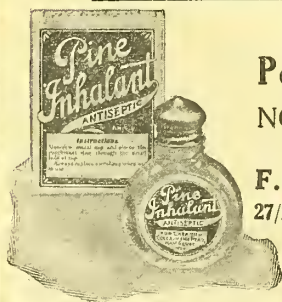
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than the usual line on the market.

ANTISEPTIC
PINE INHALANT

ARTISTICALLY DISPLAYED
is more than half sold.

In nickel-capped Stern's Bottle,
suitable for the hand-bag or
waistcoat pocket.

A READY SELLER.



Per **8/-** Doz.
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Branches at
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Be
guided
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AND

You will only stock
RED BAND
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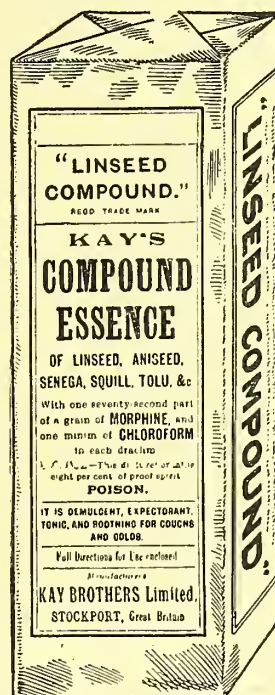
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RICHMOND TERRACE, EDINBURGH.

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A decorative stand for your counter to take two or three bottles of KAY'S ESSENCE
Ask for it on a postcard

KAY BROTHERS LTD.
STOCKPORT

Kay's Compound Essence
OF LINSEED, ANISEED, SENEGA, SQUILL, TOLU, ETC
Registered LINSEED COMPOUND Trade Mark



IT PAYS TO PUSH KAY'S

Big Drug Bargains

Buy now
at these
special
prices



Powd. Henna	-	-	1/3 lb.
Chamomile Flowers	-	-	1/- lb.
Sod. Brom.	-	-	1/6 lb.
Sod. Sal. Phy. Pure	-	-	2/5 lb.
Sacch. Lact.	-	-	1/- lb.
Gum Arabic Opt.	-	-	1/3 lb.
Phenacetin	-	-	7/- lb.
Phenazonum	-	-	8/- lb.
Ol. Eucalyptus	-	-	2/4 lb.
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£5 Carriage Paid. All Pure. Guaranteed B.P.

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**NEW & RARE
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The most successful iron
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COLLOSOL FERROMALT

(CROOKES)

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Collosol Ferromalt is now supplied in an attractive packing, admirably adapted for counter display.

Collosol Ferromalt gives a satisfactory margin, and the assurance of complete satisfaction to your clients.

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PULMO (BAILLY).—Dr. BENGUE'S DRACÉES,
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RICARD-CACHETS (Free sample on application).
ANESTILE. NARCOTILE. MUTHANOL.
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An APPLIANCE for the RELIEF of EAR NOISES
and THROBBINGS when RESTING.

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2/- per 1,000 all sizes and series

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Special Quotations for Quantities.

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to the Owner not having taken the precaution of insuring against*

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If not—we can help you.

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Established
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24, 26 & 28 MOORGATE, LONDON, E.C.2.

Funds Exceed
£600,000.

"A WARNING TO ALL CHEMISTS"

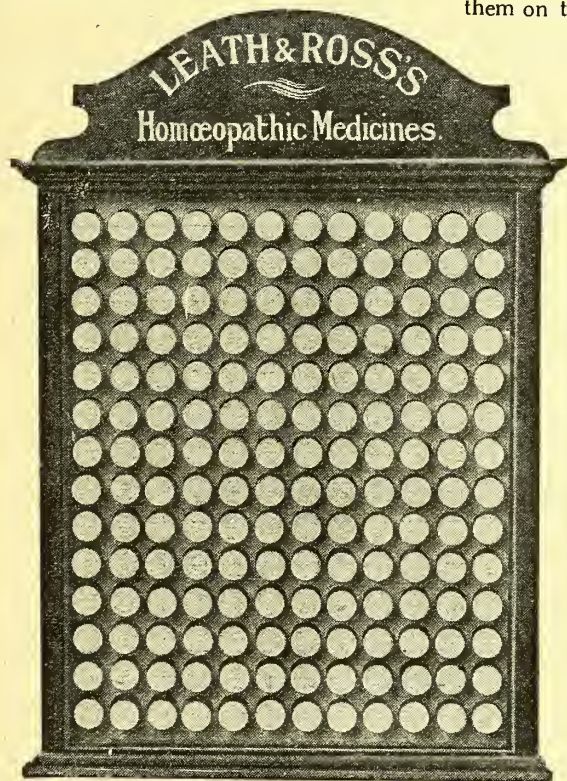
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WAKE UP NOW

H.R.H. The Prince of Wales has appointed a homœopathic physician to be his regular Medical Attendant.

The Editor of the Lancet has written "Proving the pudding by the eating, it would be difficult to say in the present state of Allopathic Pharmacology that the doctrine of Cure by Similars (Homœopathy) is wrong." *In other words, it is right.*

The Science of Homœopathy is progressing rapidly and, concurrently with it, the demand for our well-known **Homœopathic Medicines**. In order that every chemist should get his proper share of the sales of them, he should have one of our handsome UPRIGHT SHOW CASES well displayed in his pharmacy. They are very potential sales promoters, and we supply them on the following most advantageous terms, viz.:



Dimensions of the Case, Height (including scroll) 26 in.,
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	£	s.	d.
2 gross 1/- as- sorted Pilules and Tinctures; @ 4/6 per doz.	5	8	0
Half cost of Showcase (costing £3) ...	1	10	0
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10% monthly a/c	13	10	
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Or Cash with Order

£6 net.

You can choose your own medicines, or leave the selection to us. We should send the best selling lines only, and agree to exchange any within twelve months, FREE OF CHARGE.

Mr. HAROLD HAW, M.P.S., 5 Albert Terrace, Blackpool, writes: "SIRS—Showcase to hand safely; very satisfactory; has already been admired by several chemist friends."

September 13, 1921.

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(Qualified by Examination)

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Enquiries solicited
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grain spirit especially
suitable for all manu-
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The Distillery
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ESTABLISHED NEARLY A CENTURY.

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LIQUID PARAFFIN, B.P.

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GUARANTEED COLOURLESS,
ODOURLESS, & NON-FREEZING.

BOTTLES IN CARTONS.

3 oz.	4/6 doz.	6 oz.	7/- doz.
4 oz.	5/6 "	8 oz.	9/- "
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1 gall. cans	..	7/6 each
5 gall. drums	..	35/- "

Containers free, Carriage paid.

DELIVERY FROM STOCK.

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TURPENTINE
FINE OLIVE OILS
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PRICES ON APPLICATION.

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CAUTION

THE market is being flooded with supplies of cheap liquid paraffin of very doubtful quality and obscure origin.

Every pharmacist knows that the whole therapeutic value of liquid paraffin as an intestinal lubricant depends upon its standardisation to a definite viscosity and gravity, etc. Upon testing a number of these "cheap oils" not one was found to completely conform to the recognised standards.

This warning is issued not only in protection of our interests as producers of the finest quality .890 standardised liquid in the world, but also in the interests of our pharmacist friends. The reputation and prestige of the pharmacist and his business is built and upheld by the purity and integrity of his products.

There is no excuse for buying these unknown and questionable liquid paraffins, even on the question of price, for there is no similar quality liquid paraffin on the market which can be offered at a lower price than "Specialty" brand, and no other liquid paraffin—at any price—which is so thoroughly standardised and controlled in every detail. Year in and year out, every gallon of "Specialty" liquid paraffin .890 is definitely guaranteed to be of standard uniformity, viscosity, purity, therapeutic value and pharmaceutical excellence.

"Specialty" .890 liquid paraffin never varies—is brilliant at 0 deg. Centigrade and conforms to tests far more rigid than those laid down in the British Pharmacopœia. For these reasons alone it is safer and most satisfactory to use. A new filler fitting both the 5-gallon and 2-gallon containers is supplied free. Send your enquiries, and you will note how advantageously you can buy.

Any quantity supplied from $\frac{1}{2}$ gallon to tons as required.

"Specialty"
LIQUID PARAFFIN .890
Adds to the profit and prestige of your pharmacy.

ANGLO-AMERICAN OIL CO., LTD.,

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Telegrams:
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FOR PERFECT SUPPORT & DURABILITY
"SURCO" ELASTIC HOSIERY.

BELTS, TRUSSES, SUSPENSORIES, SUNDRIES.

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SURGICAL HOSIERY CO., Ltd., (Dept B) Russell St., NOTTINGHAM.

TO INCREASE YOUR REVENUE SELL

"TOINOCO" PAPER HANDKERCHIEFS

THE ORIGINAL BRAND.

The only Paper Handkerchief
regularly advertised. Face Price,
Minimum Retail.

"Papier Crepon" 50 for 1s. 9d.

"Silky Fibre" 50 for 2s.

They are not a Substitute for
anything else you sell. There is
no Substitute for them.

STOCKED BY ALL WHOLESALE HOUSES.

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VACCINATION PADS**

of BEST QUALITY material, and
SCIENTIFICALLY finished.

Each in separate Greaseproof paper,
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DELIVERY FROM STOCK.

Dr. SCHOLL'S BUNION REDUCER

Relieves and reduces bunions and enlarged joints. Eliminates shoe pressure. Made of finest surgical rubber. Men's and Women's Sizes: Rights and Lefts. Price 2/6 each.



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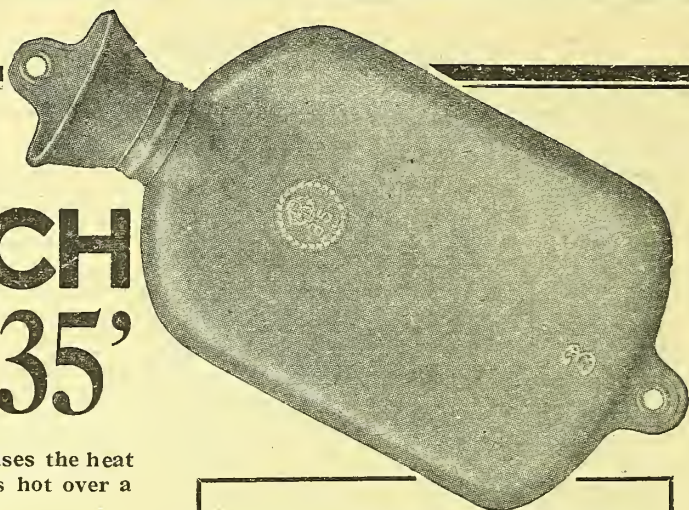
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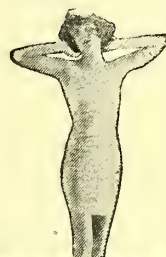
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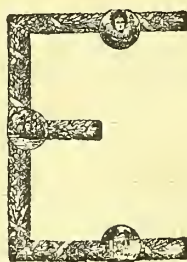
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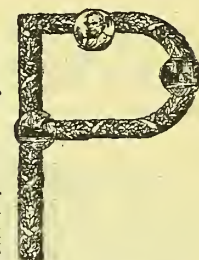
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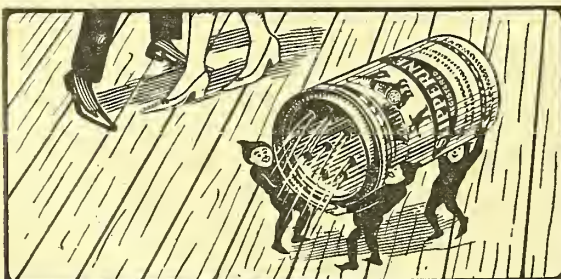
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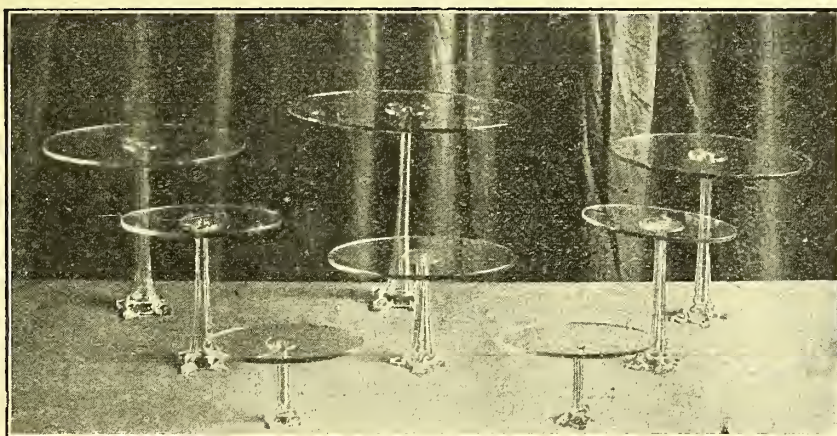


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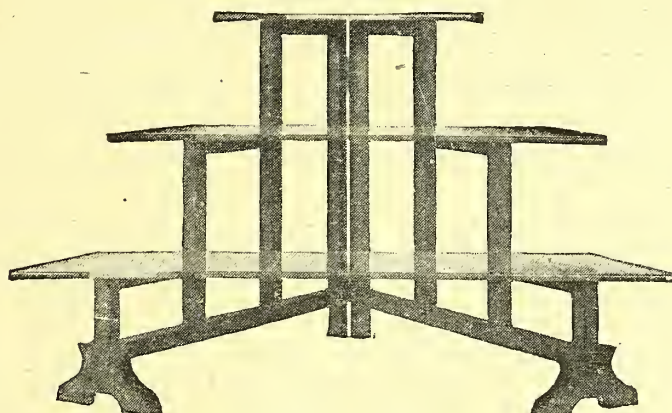


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42 CANNON ST.
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OCTOBER 17, 1925.

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EAST LONDON.—Main road, corner shop, in densely populated working-class district; no opposition; good opening for N.H.I.; 5-roomed house, electric light throughout; turnover £800, verified by C.A.; great scope for increase; established 25 years; good reason for disposing; stock, fixtures, fittings and goodwill £650. 111/24, Office of this Paper.

HOME COUNTY.—Quick Cash Retail, middle-class, with good photographic; splendid living accommodation over with private entrance and large garden, on main tram route; easy access London; returns approaching £1,550; gross profit about 50 per cent.; expenses small; held on lease at very moderate rental; every investigation courted; price £1,275. 113/19, Office of this Paper.

LANCASHIRE.—Business and Premises for Sale at Earlestown; large double-fronted corner shop, well fitted mahogany, cellared; returns about £1,300, excluding N.H.I.; average 870 monthly for this year up to July 1; good living rooms behind, bath, hot and cold water up and down; vacant possession on completion; price £1,800, half cash, half on mortgage, or nearest offer, for quick sale; retiring reason for selling. Knowles, Chemist, Earlestown, Lancs.

LONDON, S.W.—Old-established Business for disposal; returns £1,300, excluding N.H.I., which clears rent; Kodak Agency; living accommodation; valuable lease; showing exceptional profits; owner disposing after 13 years to take larger business; thoroughly genuine concern; price £700, s.a.v. or lump sum offer considered. 112/40, Office of this Paper.

MANCHESTER.—Drug Store for immediate Sale; thickly populated district; good opening for N.H.I.; electric light; good living accommodation; splendid opportunity for energetic man; good reasons for disposal. Apply 112/39, Office of this Paper.

NORTH-WESTERN Coast Resort, in most charming district, a genuine Business, returning £4,000 per annum; beautifully-fitted and well-appointed double-fronted shop, with warehouses and garage in yard; commodious house, with separate entrance; beautiful "old world" garden, fruit trees, climbing and bush roses, etc.; lease granted by the Proprietor at £120 per annum; price at goodwill and stock and fittings at valuation terms would approximate £4,000, as there is a heavy stock, absolutely good and saleable, methodically stored and well kept. Apply to Thos. Tomlinson & Son, Chemists' Valuers, 45a Market Street, Manchester.

NORTH YORKSHIRE.—Pharmacy, established 40 years, on main road; full Wine and Spirit Licence; takings last twelve months under unqualified management, £1,120; splendid opening for N.H.I.; rent and rates, £90 per annum; no house; price £300; stock about £250 at valuation. Apply 112/32, Office of this Paper.

STAFFORDSHIRE.—Neglected Light Cash Retail and Dispensing; Wine Licence; returns £30, plus N.H.I., about £5 weekly; good opening for Photographic and Optics; rent £40; lease; splendid living accommodation; bath, etc.; price £1,450, or valuation; no agents; health sole reason for sale. 111/28, Office of this Paper.

SPLENDID chance for beginner. Chemist-Dentist giving up Chemist Business in busy market colliery town near Doncaster; modern fitted pharmacy; electric, etc.; lock-up; double-fronted shop; stock and fixtures at valuation; reasonable terms. 112/9, Office of this Paper.

WESTERN SUBURB.—Chemist's Business for Sale; attractive shop, with long lease; rental £160 per annum; trade books can be inspected; owner selling owing to ill-health; price, to include all fixtures and stock, £1,000, or without stock £500. Tyser, 386 High Road, Chiswick, W.4.

WEST RIDING.—Genuine unopposed Village Business; has done £20 per week; suit qualified or unqualified; house attached, with side entrance; goodwill, stock and fixtures, £300, cash only, a bargain for quick sale; reason for sale, ill-health of proprietor; rent £25 10s. a year, held on yearly tenancy. Apply 108/36, Office of this Paper.

£380 WILL purchase Chemist's Business in growing neighbourhood; pretty country district on Bedfordshire border, 29 miles London; main road; returns average £15 weekly; Prescribing, N.H.I., and Kodak Agency; nearest opposition 4 miles; lock-up shop, living accommodation available adjoining same; 5½ years' lease at £25 per annum; bargain for quick sale. Apply 111/16, Office of this Paper.

BUSINESSES WANTED.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

ADVERTISER desires to purchase a good sound Business; London preferred; must be freehold or long leasehold; cash up to £10,000. Please send full particulars (in confidence) to L. Silverthorne, 4 Hippodrome Mansions, 28 Lisle Street, London, W.C.2.

A GENUINE Dispensing and Family Business wanted, preferably in London, taking at least £30, with possibilities of increase; rental moderate and living accommodation desirable, for own personal management. Please give me as full details as possible, which confidence will be respected, to 112/18, Office of this Paper.

CHEMIST'S Business wanted; Kent or neighbouring counties preferred; must show about £600 net profit, and must bear the strictest investigation; advertiser would prefer to meet Chemist desirous of retiring now or in the near future; cash is waiting for the right business; absolute confidence maintained throughout. Apply "Genuine," 113/7, Office of this Paper.

MESSRS. BERDOE & FISH are in immediate want of Businesses, and vendors will find it to their advantage to correspond with us, we having at the present time a large number of genuine cash buyers with from £700 to £4,000 at command, and ready to take over at once; private registers kept, and strict privacy assured. Valuation Offices: 41 Argyle Square, King's Cross, W.C.1.

£5,000 to £8,000.—Ernest J. George requires at once for client Seaside Business, South or South-East, others considered, also good inland towns. He also invites Pharmacists who desire to sell, any price, anywhere, to send particulars for private *bona-fide* negotiations. All information in confidence. 3 St. Paul's Close, Walsall.

PREMISES FOR SALE.

FINE OPPORTUNITY FOR CHEMIST'S BUSINESS.—One of the best suburbs of Bristol; new district; no competition; attractive modern shop and residence; monopoly for chemist; fortune for smart tradesman; price £1,500. Davey & Co., Ltd., Estate Agents, Whiteladies Road, Bristol.

FOR SALE.

FOR Sale, Baker's Whisk or Emulsifier, about 4 gallons capacity; also two Ointment Filling Machines. Write 73/409, Office of this Paper.

FOR Sale, three steam jacketed Copper Boiling Pans and small Porcelain End Runner Mill. Write 73/408, Office of this Paper.

SITUATIONS OPEN.

RETAIL.

[HOME.]

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

BIRMINGHAM.—Juniors (male) wanted; must have had good Dispensing experience and knowledge of Photography. Apply, stating salary required, previous experience, and when disengaged, to Izon, 86 High Street, Aston, Birmingham.

BIRMINGHAM.—Junior Assistant, unqualified, for Dispensing and Counter. Please give full particulars of experience, age, salary, etc. Atkinson, Chemist, Six Ways, Birmingham.

BIRMINGHAM.—Lady Assistant required; must be a good Dispenser and have had Counter experience; Book-keeping an advantage; permanent and progressive post. State salary required to commence with. 110/140, Office of this Paper.

BRIGHTON.—Qualified lady or gent. required; duties very light. Apply "Moderate," 110/13, Office of this Paper.

KENT.—Branch Manager, qualified, for good-class business run on modern lines; first-class Salesmanship and Display essential; permanency, with flat available on premises if required. Give full details of experience and state salary required. 112/19, Office of this Paper.

LEEDS.—Wanted, Registered Chemist, light duties, to supervise N.H.I. work; easy hours; small salary. Send full details and photo, to be returned. "X. Y. Z.," 109/1, Office of this Paper.

LONDON.—Lady Assistant required in high-class business for copying prescriptions and writing labels, and also to assist at the front counter; must have a neat and legible handwriting and be able to converse with customers. Please state age, experience and salary required. I. Bourdas, Bradley & Bourdas, 6 Pont Street, S.W.1.

LONDON.—Wanted, qualified Manager (male), qualified Assistant (male or female), and unqualified male Assistant for branch businesses in North and N.W. districts; must be good Counter hands. Apply, with full particulars of experience, stating age, references, salary required, and when at liberty, 112/27, Office of this Paper.

LONDON, N.—Wanted, gentlemanly Junior at once for good-class suburban business; accurate Dispenser and good Counterman essential, with knowledge of Photography. Personal interview preferred, or if by letter give full particulars, with photo and salary (indoor) required; comfortable home. Letters unacknowledged in four days respectfully declined. David Anderson, Chemist, Crouch End, N.8.

LONDON, N.—Wanted, by end of October, qualified Assistant, used to quick Counter trade; no N.H.I.; Photography and Window-dresser preferred. Apply (letter only), giving usual particulars, 111/26, Office of this Paper.

LONDON SUBURB.—Gentlemanly Assistant required for Counter and Dispensing; smart appearance; tactful Salesman and accurate Dispenser essential; good-class business; permanency for first-class man, and adequate reward for superior ability. Experience in full to 108/1, Office of this Paper.

LONDON, S.E.—Wanted, an Assistant for Dispensing and Counter; unqualified (permanency). Apply by letter, stating age, experience, references, when disengaged, and salary required (outdoors), to J. W. Rumsey & Son, 535 Lordship Lane, S.E.22.

LONDON, S.W.—Reliable Assistant, unqualified, wanted at once; Counter, Dispensing, and Photographic; outdoor; salary and references. 110/27, Office of this Paper.

LONDON, S.W.—Young qualified Assistant required, with good-class experience; must be good Dispenser and have good knowledge of Photography; easy hours and good prospects to suitable man. Apply, giving salary required, to J. B. Frank, Chemist, 111 Brixton Hill.

LONDON, W.—Junior Assistant (male) wanted at once; well up in Dispensing and Counter work. Apply, giving full particulars, to 113/17, Office of this Paper.

SOUTHPORT.—Wanted, a qualified Assistant for high-class business; accurate Dispenser. State age, salary, experience, and references. Hare, Chemists, Birkdale.

SWANSEA.—Lady Assistant for pleasantly situated suburban business; must be experienced at the Counter and Dispensing; permanency if satisfactory; state salary required. 110/14, Office of this Paper.

WESTCLIFF-ON-SEA.—Wanted, Young Lady Assistant (outdoors); Retail Counter and Dispensing experience, also knowledge of Photo sales. State salary and when disengaged. 113/5, Office of this Paper.

WORTHING.—Capable qualified Assistant, male, for November 1; good-class Dispensing and Retail. Send all particulars and photograph (to be returned). Also Apprentice wanted. H. Reynolds, 39 Belsize Road, Worthing.

A COMPETENT Junior Assistant, partly Dispensing, at once. Apply, with full particulars, or personally, Alsop & Quiller, 137 Sloane Street, S.W.

ASSISTANT, male, unqualified, wanted second week in November; quick and accurate Dispenser, with some knowledge of D. & P. work. Apply by letter only, giving usual particulars and salary required, to the Manager, 741 Barking Road, Plaistow, E.13.

ASSISTANT (male) required, unqualified; good Counterman and Dispenser; Cash Store trade. Please give address of last two births for references, and state salary required. Clarke, Chemist, Newport.

ASSISTANT (Junior), lady or gentleman, wanted soon. Apply personally or by letter, stating full particulars and salary required, to Alfred Alchin & Co., 9 Royal Parade, Gomers Green, N.W.11.

ASSISTANT wanted; part-time, 6-8 p.m. Thursday and Sunday; N.H.I. Apply personally or write 89 Upper North Street, Poplar, E.14.

ASSISTANT (qualified), lady or gentleman, for N.H.I. Dispensing and Counter; easy berth, progressive salary; elderly gentleman not objected to; if suitable, management, with house, in six months. Write, giving full particulars, salary, experience, etc., Evans, The Pharmacy, Penrhynweiber, Glamorganshire.

ASSISTANT, qualified, for good-class Dispensing business in country town in Yorkshire; must be a good Dispenser and knowledge of Photography essential. Apply, stating full particulars of experience, salary required, etc., to 113/13, Office of this Paper.

EXPERIENCED lady Assistant required for up-to-date Pharmacy; must be a tactful Saleswoman and a good Dispenser. Apply, stating age, experience, and salary required, Stirlings, Ltd., 17 Clarence Street, Kingston-on-Thames.

IMMEDIATELY, unqualified male Assistant, about 25, for Counter and Dispensing. Apply personally, or if by letter with photograph and references, stating age, experience, and salary required. Galloways, New Street, Birmingham.

JUNIOR Assistant (lady); unqualified; good Counter-hand and Window-dresser. State age, experience, and salary required. Arnold Roberts & Co., 171 High Street, Acton, W.5.

JUNIOR Assistant or Improver (male), 20-25, required for middle-class London business (full time, outdoors); must be a good Salesman and Dispenser, with knowledge of Photographic; preference given to young man just finished a good apprenticeship. Please state age, experience and salary required, and enclose copy of references. 111/14, Office of this Paper.

LADY, Minor qualification, wanted as Cover for Light Retail and Dispensing business in Stoke-on-Trent district; easy position. Please give full particulars as to salary required, age and experience, photo if possible. 111/35, Office of this Paper.

MANAGER (qualified) wanted; must be energetic, good Salesman and Window-dresser; also qualified Assistant for occasional evening duty. Write, with full particulars as to experience, salary required, etc., to 111/17, Office of this Paper.

QUALIFIED Assistant required for branch; quick cash business and N.H.I.; must be smart Salesman, good Window-dresser, and quick Dispenser. Apply, stating age, experience, and salary required, 110/26, Office of this Paper.

QUALIFIED, energetic, to manage branch; good Salesman, Window-dresser. Full particulars (photo if possible) to C. A. Stokes, 437 Stapleton Road, Bristol.

QUALIFIED Assistant required for branch shop; permanency to good man; capable Counterman and Window-dresser. Please state full particulars, with photo. Lester, Chemist, Canterbury.

PHOTOGRAPHS, TESTIMONIALS, &c.

When answering advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. As can be readily understood, when an advertiser receives from 60 to 100 replies the task of returning photographs, testimonials, &c., is one of some difficulty.

QUALIFIED Branch Manager, 30-35; reliable, energetic man, for good-class business. Please state age, experience, height, salary, photo if possible, etc., to Guest, 129 High Street, Brentwood.

TWO experienced qualified men to take entire charge of two shops in industrial areas; attractive Counter manners and Window-dressing ability essential; house found. Apply Banister, Chemist, Bloxwich.

UNQUALIFIED Assistant required; one with West-End experience; about 30; must be reliable and smart Counter-man. Apply, with full particulars, salary required, etc., to 110/19, Office of this Paper.

UNQUALIFIED Assistant to take part charge of shop, middle-class Retail. Send particulars, salary required to A. W. Charnley, 27 Princess Street, Bury.

WANTED, qualified Chemist to manage branch shop. Address, on or before October 20, stating age, experience, and salary required, endorsed "Chemist," to City of Bradford Co-operative Society, Ltd., 65 Sunbridge Road, Bradford, Yorks.

WANTED, at once, qualified Assistant; must be good Counter-hand, N.H.I. Dispensing; could live over shop. Give full particulars, references, etc., in first letter. Knowles, Fletcher & Co., Ltd., Belvedere, Kent.

WANTED, early in November, Junior Assistant (unqualified) for good Dispensing and Retail business. W. Pickard, 80 North End Road, opposite West Kensington Station, W.14.

WANTED, immediately, part-time Dispenser (male), Tuesdays, Wednesdays, Thursdays, 5 to 8 p.m. Jones, 4 Thayer Street, Manchester Square, W.1.

WANTED, Chemist-Optician (Diploma) for E.C. (London). Apply, stating age, salary required, experience, etc., 111/22, Office of this Paper.

WANTED, qualified Chemist for working-class district. State salary required. 111/220, Office of this Paper.

WANTED, qualified Assistant, part-time, 5 days a week, 6 hours a day; salary £3; centre Lancashire town. Apply 111/29, Office of this Paper.

WANTED, for October 26, young qualified Assistant, either sex; reliable and trustworthy; congenial berth; Dispensing, Counter and Stock. Apply, stating salary required and particulars, to 112/16, Office of this Paper.

WANTED, London, S.W., young qualified Assistant (male) for good-class Dispensing and Retail business; outdoors. State age, salary and experience. Apply 113/16, Office of this Paper.

WANTED, qualified Locum two days a week; must be thoroughly experienced; good Counterman and Dispenser. 111/11, Office of this Paper.

WHOLESALE.

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

IRELAND, FREE STATE.—Representative or Agent required, with good connection; must be live, active man covering the ground regularly; Toilet Articles and Antiseptics. Give fullest particulars, in confidence, in first letter. 72/592, Office of this Paper.

LANCASHIRE AND CHESHIRE.—Part-time, resident Representative, calling upon Retail Chemists and wishing to take up a further commission which will not clash with lines already handled, should communicate with Advertiser, giving full particulars as to present Agencies, ground covered, commission, etc., to "M. L." 73/415, Office of this Paper.

FIRM of Wholesale Chemists require a practical Laboratory worker experienced in the Manufacture of Fluid Extracts: Apply, stating experience and salary expected, to 72/395, Office of this Paper.

HARRISONS, LTD., Bayley Lane, Coventry, who are opening a new department of their old-established business, have an excellent and permanent opening for gentleman of integrity and outstanding ability, experienced in analyses, production throughout, and marketing, home and export, of absolutely highest class Toilet Requisites, Perfumes, etc.; salary and part proprietary interest offered; with or without investment. Apply, stating age, qualifications, experience, positions recently held, etc., in strictest confidence.

IRISH REPRESENTATIVE.—An experienced and energetic Representative (Irishman) having a good connection amongst Doctors and Chemists throughout the I.F.S. and Northern Counties; part services would be entertained. Apply, with full particulars as to age, qualifications, etc., to 73/414, Office of this Paper.

PART-TIME Representative with live connection wanted for the West of England and South Wales by well-known House, specialising in Pills, Tablets, Toilets, etc.; commission basis. Applications, giving full particulars, will be treated in strictest confidence. 73/416, Office of this Paper.

REPRESENTATIVE.—Wanted, a really good man to cover the Midlands and the North of England for first-class house in Druggist Sundry, Sports and Mechanical Rubber; a comprehensive knowledge of the trade and connection essential; preference given to one residing in the Manchester district; liberal salary and commission to the right man. Write full details to P.C.B. 27/4, Office of this Paper.

REPRESENTATIVES required to carry high-class, well-advertised French Perfumery, on commission basis only, in the provinces. Send full particulars first letter, mentioning lines already carried (if any) and precise territory covered. Personal interviews desired. Apply 73/412, Office of this Paper.

REPRESENTATIVE.—Required by a leading London firm of Pharmaceutical Specialists, a thoroughly capable, enterprising Representative to interview Medical Men and Trade Buyers in London and the Home Counties; must be young, single, of gentlemanly appearance and address, and a good salesman; permanent, progressive position. Apply, with full particulars as to age and previous experience, to "Energy," 73/413, Office of this Paper.

REPRESENTATIVE for Midlands to offer Pills and Tablets to Chemists; liberal commission; state ground covered, whom representing, etc.; good opening. "S. B." 113/9, Office of this Paper.

REPRESENTATIVES, calling on Chemists and Hairdressers, wanted in all districts to carry as a side line a few good lines in Rubber Goods bearing a commission of 20%; first-class references required, which will be treated in strictest confidence; when replying state territory covered. P.C.B. 28/4, Office of this Paper.

REQUIRED, Representatives for London and counties for established Toilet House selling at competitive prices; experience and established connection with good-class Chemists and Hairdressers essential; salary or commission. Write, stating terms, etc., to 109/33, Office of this Paper.

SOAP Manufacturers require Representative to call upon Chemists in Northumberland and Durham; commission basis only. Write in strict confidence, stating experience, lines carried and age, 110/39, Office of this Paper.

WANTED, Traveller to visit the Medical Profession in the provinces. Apply 73/411, Office of this Paper.

WANTED, Wholesale Chemists who are interested and desirous of handling a high-class Herbal Cough Candy showing good profits for both merchant and retailer. For particulars and samples apply Henry Crook (Granny's), North Shore Confectionery Works, Blackpool, Lancs.

WANTED, Representative for London, for House with good selling line already well in; live Salesman; state experience, etc.; liberal terms to right man. Apply 73/417, Office of this Paper.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

[COLONIAL, INDIAN AND FOREIGN]

BIARRITZ.—Assistant, speaking French, wanted at once for the Pharmacie Gonzalez, Arceaux Lacombe 1 and 2, Biarritz, France.

COLONIES.—Optical Refractionist, with S.M.C. or B.O.A. Diploma, aged 23-30, single, required for high-class European firm in British Colony; excellent opening for competent man. Write, giving full details of experience and state whether Dispensing Chemist, to Box G.285, Willings, 119 Moorgate, E.C.2.

FRENCH RIVIERA.—Gentlemanly Counter Assistant (Junior) required for season; experience of high-class Pharmacy essential. Apply in first instance by letter, giving references, etc., to "W. J. W." F. Newbery & Sons, Ltd., Charterhouse Square, London, E.C.1.

INDIA.—Assistant for British firm; Minor qualification; abstainer; age 26-30; single; first-class Dispensing experience; 4 years' agreement; salary Rs. 500 per month start; passage out and home. Apply, with references and photo, P.C.B. 27/25 Office of this Paper.

RIVIERA.—Season Assistant, with first-class Counter and Dispensing experience, required for six months. Give full particulars and salary required per month (outdoors). Allouard, Pharmacies, Hyères, Var, France.

CHEMIST.—Required, young qualified Dispensing Chemist for the East; preference given to man with Optical experience; healthy climate; four years' agreement; passage paid. Write, giving full particulars, age and experience, Box 395, Leathwait & Simmons, 34 Throgmorton Street, E.C.2.

TRAVELLING Representative required by London Manufacturing Chemists for India and the East; position would suit single man fond of travel having Minor or Major qualification and fair knowledge of Therapeutics; previous experience abroad preferred, but not essential. State age, previous experience, etc., to 72/396, Office of this Paper.

SITUATIONS WANTED.

RETAIL.

[HOME.]

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

A.A.A.A.—EXPERIENCED Assistant requires position, Manchester or district; all branches; used to management; good Salesman, quick Dispenser, Window-dresser; reliable, energetic; excellent references; referred Materia Medica only. "Worker," 219 Cheetham Hill Road, Manchester.

A.A.A.—QUALIFIED (27), tall, single, experienced, desires position as Manager or Assistant; London district preferred. J. Willcocks, Datchet, Bucks.

A.A.—IMMEDIATE, unqualified; Manager, Locum, or Assistant; 46; working-class neighbourhood; competent, not afraid of work; good references. Barclay, 4 Brampton Gardens, Brampton Road, Harringay, N.15.

A QUALIFIED Manager or Assistant; 26; capable and trustworthy; good all-round experience; sound references; disengaged shortly. Please reply 111/3, Office of this Paper.

A TALL, energetic, middle-aged Assistant, unqualified, married, all-round experience, seeks engagement where reliable service is appreciated; excellent references; Midlands, Birmingham district, preferred; permanency or Locum. "Chem," c/o 4 Repton Road, Bordesley Green, Birmingham.

AS experienced Locum, part times, or emergency Relief; all branches, or sole charge. "Reliable," 229, Sumner Road, Peckham, S.E.

AS Locum, permanency or stocktaking; excellent references and experience; moderate terms; disengaged. "Aspirin," 161 Whiteladies Road, Clifton, Bristol.

AS Manager; 20 years' experience, Dispensing, Photography, Optics (Certificated Optician); personal interview. "Chemist," 9 Waldemar Avenue, Fulham, S.W.6.

ASSISTANT; first-class experience in Dispensing, Counter-work, Photography, etc.; distance no object. "Validol," 5 West Road, Westcliff-on-Sea.

ASSISTANT, 22, smart appearance, referred Pharmacy, requires temporary or part-time engagement, London. "F.," 24 Glenthorne Road, Hammersmith.

ASSISTANT, unqualified, age 24, height 5 ft. 10 in., of smart appearance, seeks berth; North London preferred; good all-round experience; terms moderate. "Statim" (P.C.B. 28/5), Office of this Paper.

ASSISTANT, or Manager; varied experience all class, including Veterinary, Agricultural, Shipping, Hospital Dispensing, etc. "Chemicus," 79 Cecil Street, Manchester, S.

ASSISTANT (20), passed Minor Part I; good Dispenser and Counterman, with knowledge of Photography, seeks situation. "H. L.," 63 Clincon Road, Bow.

ASSISTANT, Lady, 10 years' experience. Counter, Window-dressing, D. and P. (trade), seeks London position. "L.," 33 Neasden Lane, N.W.3.

ASSISTANT, thoroughly capable and with wide experience; unqualified; references bear testimony to ability, honesty and trustworthiness; disengaged when required. 10 Barclay Road, Walham Green, Fulham.

ASSISTANT, 22, requires position; Midlands preferred; good all-round experience; now disengaged. "P.," 49 Longford Street, Derby.

ASSISTANT, 20, 6 years' experience, requires situation (where opportunity would be given to attend classes); good Dispenser and knowledge of Photography; Liverpool preferred. 112/30, Office of this Paper.

ASSISTANT (35, unqualified), up-to-date experience all branches, Photographic, etc., keen Window-dresser, brisk Counter; not afraid of work; eight years last two situations; would manage Stores, London or suburbs; free one week. 113/31, Office of this Paper.

ASSISTANT (23) unqualified, 7 years' good-class Dispensing and Photographic experience, desires situation in London; City preferred. 113/15, Office of this Paper.

ASSISTANT or Junior; tall; age 26; unqualified; Yorks preferred. 113/27, Office of this Paper.

BRANCH Manager; qualified; good middle-class provincial; London experience; Photography; reliable; genuine; disengaged; permanency desired; well worthy attention and investigation. Poynter, 41 Roseberry Road, London, N.9.

CHEMIST, West End and Continental, pre-war qualification, desires senior berth. "Diplômé," 25 Thorold Road, Ilford, Essex.

CHEMIST-OPTICIAN desires permanency as Manager; 6 ft.; 27; married; North Midlands preferred; competent and reliable. "Manager," 113/12, Office of this Paper.

COMPETENT Assistant (37); London and Provincial experience in Dispensing, Counter, Photography, Prescribing; abstainer. "Aspirin," Cwmiar, Llanybyther, South Wales.

DISENGAGED November 1; fully-qualified Pharmacist; long experience in all branches Pharmacy; undeniable references; Scotsman; abstainer. Write "A.," 39 Argyle Gardens, Upminster, Essex.

DISENGAGED, 17th inst., Locum (or permanency, London); Qualified Pharmacist; excellent experience; rapid Dispenser. "M.P.S.," 3 Rectory Road, Stoke Newington, N.

DISENGAGED, qualified, long experience, requires permanency or Locum; London district; excellent references. "B.," 24 Mead Plat, Willesden, N.W.

DISENGAGED, Qualified Pharmacist; experienced; whole or part time. "Pharmacist," The Limes, 69 Elthorne Park Road, Hanwell, W.7.

DISPENSER, Lady (Hall), Hospital and Chemist experience, Book-keeping, requires post; full or part time; Doctor or Institution. Day, Brimley, Richmond Road, Wolverhampton.

EXPERIENCED Pharmacist, disengaged November 1, desires post as Manager or Assistant; London, West-End, preferred; speaks French and German fluently. 'Phone: Museum 3738. S. Humphreys, M.P.S., 1 Belsize Avenue, N.W.3.

EXPERIENCED, unqualified, 25, seeks progressive position; thorough knowledge of all branches Retail business; interested in work. "Reliable," 112/20, Office of this Paper.

JUNIOR, 22, qualified September, desires post in high-class Retail and Dispensing business in London. H. W. Franklin, 3 High Street, Abingdon, Berks.

JUNIOR (23), 5 ft. 8 in., all-round and Photographic experience, willing, disengaged, requires a Dispensing post. Mattar, 5 Brixton Hill, S.W.2.

ADY Assistant (unqualified), 6 years' experience, desires a post about January 3 with Chemist; tall; willing to assist in any way; South Coast or London suburbs preferred; studying for Minor. 75/6, Office of this Paper.

ADY Dispenser (Hall), experienced, desires part-time post; Manchester district preferred. Miss Postlethwaite, Craignair, Bowden Road, Swinton, Manchester.

ADY Assistant, 21, unqualified, desires situation, chiefly Dispensing, also N.H.I.; good all-round experience, Counter, etc.; energetic; willing to work in good progressive post; alternate Sunday duty; excellent reference; country, seaside, or town; salary required £2 15s. weekly; disengaged October 31. "Cocoid," 110/24, Office of this Paper.

ADY (Hall), studying for Minor, seeks post with Chemist in Essex or London; small salary; good references. 111/4, Office of this Paper.

ADY Dispenser, experienced (Hall); Doctor or Chemist, Surgical Dressings, Window-dresser, Retail, Book-keeper and Typing, etc. 31 Bessborough Street, Victoria, S.W.

ADY Assistant, qualified (Minor), 24; five years' experience in Dispensing, Counter and Photography; excellent references; at liberty when required; London or provinces. "Miss L.," 118 High Street, West Norwood, S.E.

ADY; all-round experience, Retail, Dispensing, etc.; unqualified. "Miss F.," 59 Waveley Road, Coventry.

ADY, 21 (Hall) seeks post immediately; good Dispensing and Counter experience; salary secondary importance. Mplling, Maxwell House, 24 Clifton Gardens, Maida Vale, London, W.9.

ADY Dispenser (Hall) requires post anywhere; excellent Hospital and Doctor's experience; Book-keeping; moderate salary. 65 Mayfair Avenue, Ilford, Essex.

ADY (Hall), studying Minor, would like Dispensing week-ends; West-End experience; N., N.W. preferably. 111/20, Office of this Paper.

ADY Assistant, unqualified, desires post in London; Counter, Photographic and Window-dressing; 8 years' experience. 11/39, Office of this Paper.

ADY, qualified (23), desires post in London as Dispenser, Chemist, Doctor or Institution; experience, 2 years country, 7 years London; high-class Dispensing, Counter, Photographic; some knowledge of Book-keeping; willing take counter if required; excellent testimonials. 111/6, Office of this Paper.

LIVERPOOL OR NEAR.—Disengaged, unqualified, age 21, 7 years' good-class experience, requires situation with time off for classes on Tuesday evening and Wednesday afternoon. D. Graham, 38 Wellbrow Road, Walton, Liverpool.

LOCUM, unqualified, or winter permanency; take sole charge if required; good experience all branches, Counter, Dispensing, Windows; city, country, and seaside experience; age 25; a good remunerative permanency entertained; free November 2. Particulars to 102/33, Office of this Paper.

LONDON.—Temporary Dispensing post, good-class business, required for few weeks; qualified (1920); excellent experience. Dalton, Beverley, Brightlingsea.

MANAGER; qualified; reliable and trustworthy. "Chemist," 19 Bilbie Street, Nottingham.

MANAGER, qualified, desiring change, requires similar post; energetic; experienced; reliable; free middle of November, or earlier by arrangement; present position over 4 years. 12/15, Office of this Paper.

MANAGER, unqualified, seeks position with view to succession; good all-round experience; highest references. 12/25, Office of this Paper.

MANAGER, qualified Pharmacist, with initiative and all-round knowledge, age 30, requires position in good-class pharmacy, with living accommodation, on South Coast; interview any week-end; free one month after engagement. 113/23, Office of this Paper.

NAMES AND ADDRESSES.

When sending advertisements for any of the sections in this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not followed and delay and disappointment ensues. Strict attention to this detail will be appreciated.

M.P.S., elderly; Cover, Locum, Manager, Dispenser; disengaged, engaged, and active. "Chemist," 162 Walton Street, Oxford.

M.P.S., 24, desires post as Manager or Senior; good worker; well recommended; disengaged. "Chemist," 6 Savile Road, Leeds.

MURIEL PRICE, qualified, desires post for November and December; front counter; experienced Saleswoman. C/o Knight & Crofts, Hinckley, Leicestershire.

PART-TIME, 3 or 4 evenings; West-End experience; Counter and Dispensing; excellent references; S.E. or S.W. preferred. Martin, 120 Salehurst Road, S.E.4.

PART-TIME, evenings or Saturday duty; experienced; capable Dispenser, Counterman. Lewis, 34 Rectory Grove, Clapham, S.W.4.

QUALIFIED; 54; active; disengaged; Manager, Cover, Dispenser, etc. Taylor, 34 Packington Street, Islington, N.1.

QUALIFIED; 22; tall; all-round experience, including Optics (F.S.M.C., Part I) and Photography; South of England; A. V. Corden, Pulborough, Sussex.

QUALIFIED; 29; tall, active and courteous; good all-round experience; highest references; married; abstainer. "M. C.," 110/23, Office of this Paper.

QUALIFIED, Scot, 26, good all-round experience, desires post, Manager or Assistant; disengaged. 111/7, Office of this Paper.

QUALIFIED, 38, single, tall, seeks position of responsibility; 16 years' experience as Manager, including West-End; first-class references. Apply 110/18, Office of this Paper.

QUALIFIED, 21, 5 ft. 3½ in.; abstainer; experienced fast Retail, N.H.I. and Photo.; thorough knowledge Wireless; disengaged; good reference. Whitehouse, 91 Regent Street, Kingswood, Bristol.

QUALIFIED; good experience at Counter, Photography and Dispensing; age 23; 5 ft. 9 in.; Square trained; London (Central, S. or S.W. district) essential. "Stoke Prior," Lenham Road, Sutton.

QUALIFIED; up-to-date in Photography and Window-dressing; 21, energetic; Assistant or Manager; near Bournemouth preferred; would entertain purchase of reliable business. Particulars to Macqueen, Boscombe, Bournemouth.

QUALIFIED lady, 22, requires situation as Assistant in high-class Retail Pharmacy in London. Morris, 150 Camden Road, N.W.1.

QUALIFIED, 35, tall, good appearance and references, free November 1, requires situation in London. "Osmosis," 46 Orlando Road, S.W.

SENIOR Assistant, experienced, Dispensing, Photographic, Salesman, reliable; desires permanency. Breckon, 8 Lilac Gardens, Low Fell, Gateshead-on-Tyne.

STUDENT, tall, passed Part I, requires evening work, Clapham, Kennington, Southwark districts; London and country experience; will call personally. 110/40, Office of this Paper.

UNQUALIFIED; efficient and experienced Assistant; excellent references; capable of taking entire charge; at liberty. Williams, 21 High Street, Lewisham, S.E.13.

YOUNG lady requires situation to Chemist; any capacity; not a Dispenser. M. Williams, 37 Burgoyne Road, Haringay, N.

YOUNG, qualified, desires post in business requiring energetic management; eager to work conscientiously; managerial experience; excellent references; Midlands preferred; disengaged. 4 The Common, Woolwich, S.E.18.

WHOLESALE.

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

A KEEN young man, 24, single, Secondary School education, over 9 years' experience Packed Goods, Manufacturing, and General Merchants' trades, desires change; sound knowledge costing buying, factory management all departments; hard worker, conscientious, reliable; willing to go abroad. 108/40, Office of this Paper.

A DVERTISER desires new post as Buyer or Manager of Patent Medicines, Proprietaries, Sundries, etc., Department; 20 years' experience of all branches of Wholesale and Retail. 106/9, Office of this Paper.

A DVERTISER, with thorough all-round Manufacturing experience, including Specialities for Chemists, Grocers and General Dealers, desires berth; some knowledge of Tablet Making and Machinery; could take charge. 110/33, Office of this Paper.

A DVERTISER seeks situation; knowledge of Steam Laboratory work and in the Manufacture of Sheep Dips, Disinfectants; excellent references. "B.", 21 Antill Road, Tottenham.

A DVERTISER desires position as Traveller; experienced; Sundries, Fancy Goods and Dressings, in South Wales; excellent references; connection. 112/2, Office of this Paper.

A DVERTISER, with twelve years' experience, representing one firm amongst the Medical Profession, desires change; open to represent House handling Medical Specialities or Sundries; would consider propaganda work. 112/38, Office of this Paper.

C AN anyone offer advertiser position as Checker or Stock-keeper or any similar position in Wholesale Warehouse? With 9 years' experience, thoroughly reliable, good worker; excellent references; disengaged. 110/37, Office of this Paper.

E XPERIENCED Representative, connection in N.E. Area, acquainted with London, South Coast and Midlands, desires represent good House with Proprietary line included; salary basis; excellent references. "Unguentum," 112/31, Office of this Paper.

E XPERIENCED Traveller wishes represent good House; Devon and Cornwall ground; old-standing connection Chemists, etc.; commission and expenses; qualified. 113/22, Office of this Paper.

E XPERIENCED Traveller, well known in trade, London connection, open for representation, Drug Salesman, or could introduce good Proprietary. P.C.B. 28/9, Office of this Paper. Will advertiser please send name and address.

G ENTLEMAN, tall, age 26, Public School education, desires to become connected with high-class Wholesale House with a view to acting as Representative; 6 years' experience of Retail trade; highest references. "R. W.," 23 Lucan Road, Aigburth, Liverpool.

G ENTLEMAN wishes to represent Perfumery, Sundries or Drug House, South Wales and Western Counties. 14 Bedwas Place, Penarth.

L ONDON Representative wants high-class Pharmaceutical Product or Proprietary; commission and expenses; thoroughly experienced. 110/15, Office of this Paper.

Q UALIFIED Chemist, 28 years of age, is anxious to negotiate with established Manufacturing Drug or Toilet House with view to representation in Ireland; a good connection with leading Chemists in Dublin and Belfast; terms, salary, expenses, and commission. 108/5, Office of this Paper.

R EPRESENTATIVE, with selling ability and extensive connection with Wholesale and Retail Chemists, Perfumers, Stores, etc., Lancashire, Cheshire, desires to represent first-class House in Soaps, Toilet Requisites or Proprietary; excellent references. "H. K.," 4 Almond Grove, Old Trafford, Manchester.

R EPRESENTATIVE, covering Midlands, Lancashire and N. Wales with car, open additional Proprietary. "C. W. B.," 46 Grantham Road, Sparkbrook, Birmingham.

S ALES MAN.—Advertiser, energetic and adaptable, wishes to represent Perfumery House; 18 years' technical experience of Retail and Manufacturing; thorough knowledge of Toilet Trade; small salary for opportunities. 113/24, Office of this Paper.

T RAVELLER, with good connection, Wholesale and Retail Chemists in Lancashire, would take up any well-known Proprietary. 112/7, Office of this Paper.

T RAVELLER, 36, sound connection London, etc., 200 new accounts in six months, seeks repeat lines and permanency. "Salesman," 111/32, Office of this Paper.

U NQUALIFIED Assistant, Wholesale and Retail experience, desires position in Wholesale firm. "Advertiser," 5 Linkway, Chadwell Heath, Essex.

MISCELLANEOUS.

10s. for 60 words; 1s. for every additional 10 words or less.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

C HEMIST'S Fittings (second-hand), also new.—Ranges of Drug Drawers, Dispensing Screens, Glass-fronted Counters, Wallcases, Centre Cases, and All Glass Counters; Counter Cash Tills from 25s. The "Kwik-Salo" Case, made specially for Chemists' Counters, with slope front and mirror sliding doors at back, 3 ft. long, price £5 10s. D. MATTHEWS & SON, Chemist Fitters, 14 and 16 Manchester Street, Liverpool.

S ECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.2.

S HOP FITTINGS (Second-hand).—14 ft. Drug Fitting, drug drawers, etc., 10 ft. glass-fronted Counter, Perfumery Case and Desk, and nest of Counter Drawers, 8 ft. Mahogany Wall Case, 6 ft. Dispensing Screen, complete; bargain, £147. Also handsome modern set of Oak Interior Fittings, suitable for high-class or West-End Pharmacy; would accept £170. Details, etc., on application. H. MILLS & SONS, LTD., Shopfitters, 163-5 Old Street, London, E.C.1.

£135.—COMPLETE SET OF FITTINGS.—Could easily be adapted to fit almost any sized shop. A great bargain. 20 ft. Drug Fitting containing 144 drawers in lower part, with lockers and cupboards, glass cases and mirrored poison cupboard and shelves in upper part; 15 ft. Counter with cases in front fitted glass shelves, drawers at back; 8 ft. Wall Show Case; Perfumery Showcase; 6 ft. very handsome Dispensing Screen; Counter Cases; Cash Desk; ready for immediate despatch. PHILIP JOSEPHS & SONS, LTD., 93 Old Street, London, E.C.1.

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W OMEN PHARMACISTS.—The National Association of Women Pharmacists can supply immediately experienced Pharmacists for Retail (Managers or Assistants), Hospital or Doctors; town or country. Write or wire, ANDREWS, 285 Harrow Road, W.9.

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FILMS.—12 rolls, 118; 3 rolls, 101; date April, 1926; third off Kodak price. Sheil, Chemist, Tullamore.

2 LBS. OL. MENTHAE JAPAN (Dementholised), (Evans); best offer secures. Gretton, Chemist, Arnold.

SACCHARINE TABLETS, $\frac{1}{4}$ grain, .350 in 1; perfect condition; 14 lb. approx. Offers to A. P. Wallace, Pharmacist, Aberdeen.

WANTED.

REVALENTA FOOD, any size, any quantity. Savago, Chemist, Brighton.

SIFTING AND MIXING MACHINE (Gardner's make). Write 73/410, Office of this Paper.

MEGGESON'S ORDINARY SHARES. Please state lowest price. "A.," 110/16, Office of this Paper.

CHEMIST requires Fixtures, Fittings, etc., for new branch. Full particulars 112/400, Office of this Paper.

GOWER, Chemists' Bookseller, 41 Voltaire Road, Clapham, wants Pharmaceutical Books and Students' Requisites.

Quick Sellers

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